



**ASSA ABLOY**  
Opening Solutions

Experience a safer  
and more open world

# Aperio<sup>®</sup> Technology



*Wireless possibilities* for  
online access control





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

## ELECTRONIC SECURITY HARDWARE HES | Securitron

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### *HES ES100 Electric Strike*

For use in commercial and institutional applications with existing locksets

### *HES K100 Cabinet Lock*

For use with swinging and sliding cabinet doors and drawers

### *HES KS100 Server Cabinet Lock*

For use with cam-activated swing handle server cabinet doors

### *Securitron R100 Card Reader*

For use on glass, stone or metal surfaces

## ADAMS RITE

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### *A100 Trim*

For use in commercial narrow stile aluminum locking applications

### *G100 Digital Glass Door Deadlock*

For use with single or double all-glass interior doors

## CORBIN RUSSWIN

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### *IN100 Lock*

For use in commercial and institutional applications

## SARGENT

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### *IN100 and PR100 Locks*

For use in commercial and institutional applications

*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 system. You can easily expand the reach of existing access control systems and secure openings that would otherwise go unprotected.

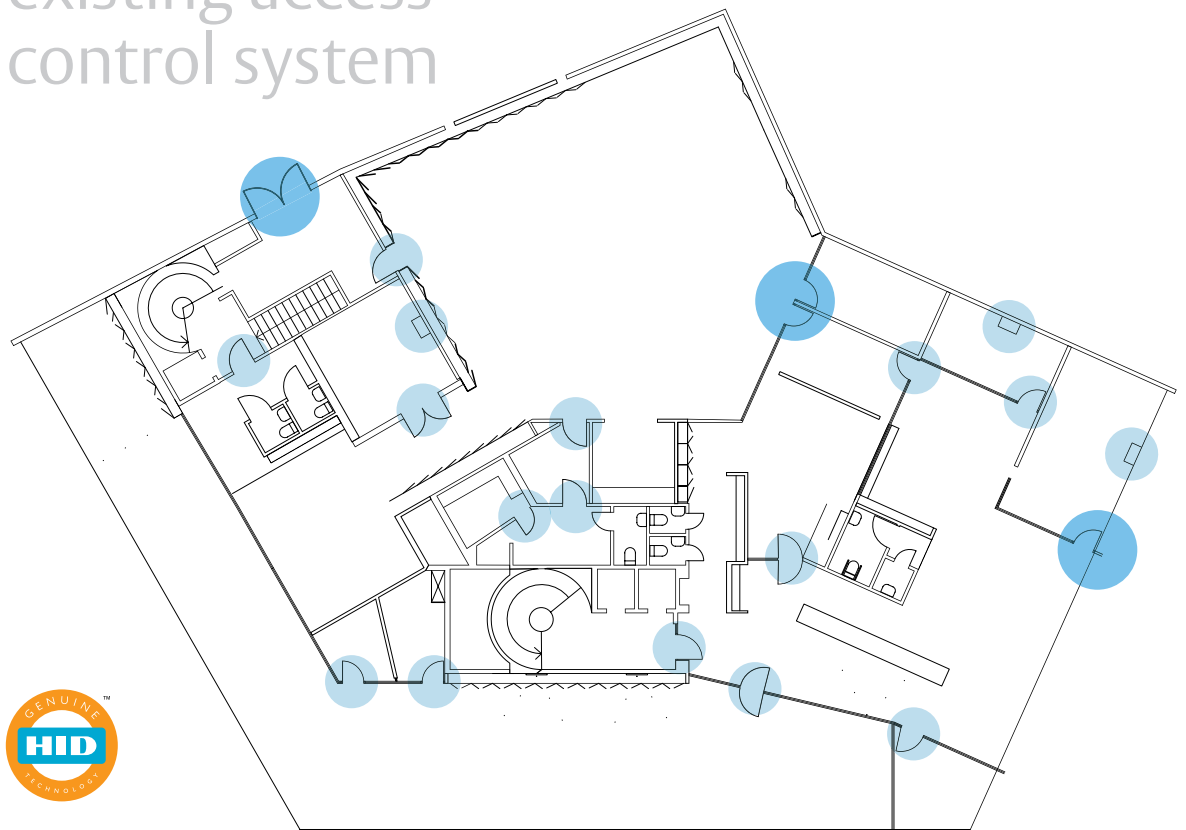
With the global range of Aperio-enabled locks from ASSA ABLOY, online access control can be easy and cost-effective at any opening, with standardization across locations worldwide.

## 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

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 (No-Cut)	RF Communication	Multi-Tech Card Reader	Dual-Factor Keypad Option	Mechanical Key Override	DPS (Door Position Status)	Locked State Monitoring	REX (Request-To-Exit)	Tamper	Battery Health	Battery Type	No. of Batteries Required	Batteries Included	Est Battery Life	Emergency/Battery Backup	Hard Power Option	Unique Features
Narrow Stile Aluminum Deadlocks, Deadlatches and Exit Devices	ADAMS RITE A100 Aluminum Storefront Trim	Swinging, single or double door, narrow stile aluminum storefront entrances with a fixed leaf	Interior, exterior		Outside	•	•	•†			•†	•	•	1.5V LR6 AA Alkaline	2	•	50K			
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		Inside	•		•	•		•	•	•	1.5V LR6 AA Alkaline	6	•	50K		•	Privacy button (local lockdown) Deadbolt monitoring
	SARGENT PR100 Locks and Exit Devices	Swinging, single or double door hollow metal or wood openings with a fixed leaf	Interior, exterior		Inside		•	•	•		•	•	•	1.5V LR6 AA Alkaline	6	•	50K		•	Deadbolt monitoring
	HES ES100 Electric Strike	Swinging, single or double door hollow metal or wood openings with a fixed leaf	Interior		Dependent on reader location	•			•†	•		•	•	1.5V LR6 AA Lithium	2	•	45K	•	•	Convenience (non-monitored) Security (M, monitored)
Frameless Glass Door Openings	ADAMS RITE G100 Digital Glass Door Deadlock	Swinging, single or double door frameless all-glass openings with a fixed leaf	Interior	•	Inside		•		•		•	•	•	1.5V LR6 AA Alkaline	4	•	40K	•	•	Surface mount, no cutting required
Cabinet Doors & Drawers	HES K100 Cabinet Lock	Swinging and sliding cabinet doors and drawers with up to 2-1/4" thickness	Interior		Outside	•		•	•		•	•	•	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		Outside	•		•	•†	•		•	•	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, outdoors	•	Outside	•							•	1.5V LR6 AA Lithium	2	•	50K	•	•	

† Optional accessory purchased separately





# Wireless *possibilities* for online access control

For additional information on Aperio products,  
please visit [www.intelligentopenings.com/aperio](http://www.intelligentopenings.com/aperio)

Technical documentation is available in the  
Partner Area on [IntelligentOpenings.com](http://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](http://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.



# HES ES100

## ELECTRIC STRIKE

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

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.

Pairing the R100 surface-mounted reader and ES100 concealed electric strike reduces complexity and cost by utilizing the existing door hardware and eliminating the need for power at your opening.



## FEATURES & BENEFITS

	R100	ES100
<b>Works With:</b>	Most smooth glass, metal or stone surfaces without the need of additional third party adhesives	Most brands of cylindrical and mortise locksets in hollow metal and wood frame applications
<b>Installation:</b>	Surface mounted, no drilling required for easy installation	Surface-mounted reader with a fully finished electric strike
<b>Special Features:</b>	Real time tamper and battery health monitoring	<ul style="list-style-type: none"> <li>Horizontal adjustability with integrated shim for changing door conditions</li> <li>Field upgradeable monitored and non-monitored options offer real-time door status monitoring with DPS, tamper and low battery signals</li> <li>Lockdown capability allows the ES100 to respond to lock/unlock commands from a host EAC system in less than 10 seconds</li> </ul>
<b>Design:</b>	Tamper and weather resistant protected by integrated monitoring	Tamper and weather resistant protected by integrated monitoring; concealed in-frame to match existing hardware
<b>Battery Backup:</b>	5V Micro-USB Port for Emergency Power	5V Micro-USB Port for Emergency Power
<b>Options:</b>	Adhesive aluminum dress cover plate (R100-DPK)	<ul style="list-style-type: none"> <li>Latch and door position monitoring</li> <li>Wholesale kit with pre-paired 1:1 AH20 Wiegand hub</li> </ul>
<b>Credential Support:</b>	<p>HID® multiCLASS SE™ technology offers support for the following credentials:</p> <p><b>High Frequency (13.56 MHz):</b> HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESfire® EV1 SE, MIFARE Classic, DESfire EV1</p> <p><b>Low Frequency (125 kHz):</b> HID Prox®, AWID, EM4102</p> <p><b>NFC &amp; BLE-enabled Mobile Phones:</b> HID Mobile Access (BLE and NFC), Seos Apple Wallet (NFC)</p>	<p>HID® multiCLASS SE™ technology offers support for the following credentials:</p> <p><b>High Frequency (13.56 MHz):</b> HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESfire® EV1 SE, MIFARE Classic, DESfire EV1</p> <p><b>Low Frequency (125 kHz):</b> HID Prox®, AWID, EM4102</p> <p><b>NFC &amp; BLE-enabled Mobile Phones:</b> HID Mobile Access (BLE and NFC), Seos Apple Wallet (NFC)</p>





# *Access control* in a flash

## G100 DIGITAL GLASS DOOR DEADLOCK

*Fashion-forward design that  
harmonizes style and security*

The sophisticated styling of the Adams Rite G100 lends itself to beautiful all-glass doors in ways no other lock can. Compared to traditional options such as electromagnetic locks or cutting and drilling patch fittings, the G100 offers superior styling and convenience with the added security of dual-factor authentication and fully encrypted wireless communication to the host access control system.







# A100 NARROW STILE TRIM

*Electronic access control trim for aluminum storefront entrances*

The Adams Rite A100 provides safety, security and convenience at a cost-effective price for retrofitting aluminum and hollow metal entrances with electronic access control. Ideal for both interior and exterior door applications, the A100 offers an easy-to-install electronic access control trim for openings with existing Adams Rite deadlocks, deadlatches and exit devices.



## FEATURES & BENEFITS

	G100	A100
<b>Works With:</b>	Swinging single or double all-glass door applications with a fixed leaf 7/16" to 1/2" (11.1 mm to 12.7 mm) glass door thickness	Adams Rite MS <sup>®</sup> Series Deadlocks, 4500/4900 Series Deadlatches, and 8000 Series Exit Devices; Yale 7200 Series and Corbin Russwin ED4000 Series Rim Exit Devices
<b>Installation:</b>	Surface mounted trim, no cutting or drilling required	Surface mounted with concealed fasteners for 1-3/4" to 2-1/4" [44.5 mm to 57.2 mm] door thickness
<b>Special Features:</b>	Real time REX, DPS, tamper and battery health monitoring	Field-selectable handing using clutched-protected lever
<b>Design:</b>	Non-handed with Lever knob	Surface-mounted trim with concealed fasteners for use on swinging narrow stile aluminum doors from 1-3/4" to 2-1/4" [44.5 mm to 57.2 mm] door thickness
<b>Key Override:</b>	N/A	5-pin mortise cylinder
<b>Options:</b>	N/A	Dual-factor authentication when using keypad (1-16 digit pin codes); Request to Exit and Door Position Switch (sold separately)
<b>Credential Support:</b>	<b>High Frequency (13.56 MHz):</b> HID iCLASS <sup>®</sup> , HID iCLASS SE <sup>®</sup> (SIO-enabled), HID iCLASS <sup>®</sup> Seos <sup>®</sup> , HID MIFARE <sup>®</sup> SE, HID DESFire <sup>®</sup> EV1 SE, MIFARE Classic, MIFARE DESFire EV1, NFC-enabled mobile phones	<ul style="list-style-type: none"> <li><b>High Frequency (13.56 MHz):</b> HID 13.56 MHz iCLASS<sup>®</sup> (ISO 15693)</li> <li><b>Low Frequency (25 kHz):</b> HID Prox<sup>®</sup></li> </ul>

# Refining wireless access control



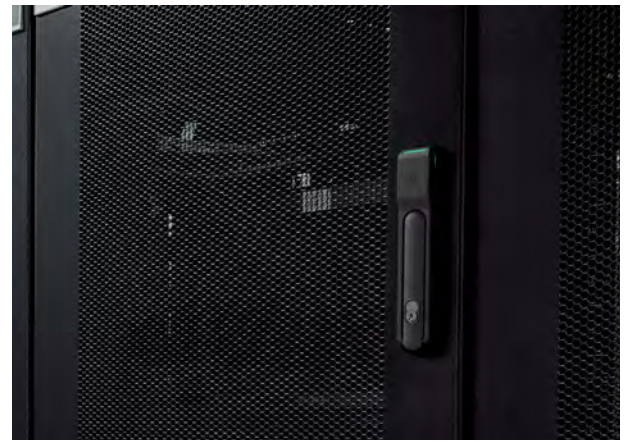
K100

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.



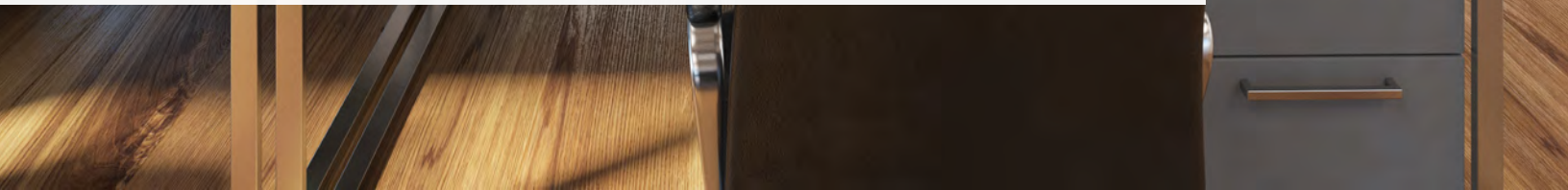
### FEATURES & BENEFITS

	K100	KS100
<b>Works With:</b>	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
<b>Installation:</b>	Surface mounted lock and trim with concealed fasteners	No-cutting required when installed in an existing 150 x 25 mm lock prep.
<b>Special Features:</b>	Real time DPS (locked state), tamper and battery health monitoring	Real time integrated locked state (handle), cam rotation, tamper and battery health monitoring
<b>Design:</b>	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
<b>Key Override:</b>	Optional cam activated cylinder (sold separately)	Optional 6 or 7-pin SFIC (sold separately)
<b>Options:</b>	Open back strike plate (OBS-622) for drawer applications	Optional external door status monitoring (KS-DPS)
<b>Credential Support:</b>	HID® multiCLASS SE™ technology offers support for the following credentials:  <b>High Frequency (13.56 MHz):</b> HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESfire® EV1 SE, MIFARE Classic, DESfire EV1  <b>Low Frequency (125 kHz):</b> HID Prox®, AWID, EM4102  <b>NFC &amp; BLE-enabled Mobile Phones:</b> HID Mobile Access (BLE and NFC), Seos Apple Wallet (NFC)	HID® multiCLASS SE™ technology offers support for the following credentials:  <b>High Frequency (13.56 MHz):</b> HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESfire® EV1 SE, MIFARE Classic, DESfire EV1  <b>Low Frequency (125 kHz):</b> HID Prox®, AWID, EM4102  <b>NFC &amp; BLE-enabled Mobile Phones:</b> HID Mobile Access (BLE and NFC), Seos Apple Wallet (NFC)





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.





## PR100 LOCK

### *Bring access control deeper into your facility*

The Sargent PR100 lock with Aperio® Technology makes it easy and cost-effective to bring access control to additional doors. It uses local wireless communication between an Aperio lock and hub to connect to an access control system, eliminating the greatest cost and inconvenience of traditional access control – the wiring at the door.



## FEATURES & BENEFITS

	IN100	PR100
<b>Hardware:</b>	ANSI/BHMA Grade 1 hardware for the highest degree of physical security available in access control locks	ANSI/BHMA Grade 1 hardware for the highest degree of physical security available in access control locks
<b>Installation:</b>	Quick and easy — integrated reader, monitoring and short range wireless radio simplifies installation and reduces material costs	Quick and easy — integrated reader, monitoring and short range wireless radio simplifies installation and reduces material costs
<b>Monitoring:</b>	Real-time door status monitoring with REX, DPS, tamper and low battery signals	Real-time door status monitoring with REX, DPS, deadbolt, tamper and low battery signals
<b>Special features:</b>	<ul style="list-style-type: none"> <li>Lockdown capability allows the IN100 to respond to lock/unlock commands from a host EAC system in less than 10 seconds in battery-powered applications</li> <li>Instant local lockdown using privacy button or deadbolt</li> <li>Support for passage mode scheduling offers convenience for office environments</li> </ul>	<ul style="list-style-type: none"> <li>Instant local lockdown using deadbolt</li> <li>Support for passage mode scheduling offers convenience for office environments</li> </ul>
<b>Available in:</b>	Cylindrical lock, mortise lock, and exit device configurations, offering the flexibility to support a variety of openings	10 Line Bored Lock, 8200 Series Mortise Lock, and 80-Series Exit Device, offering the flexibility to support a variety of openings
<b>Options:</b>	Patent-pending credential cache ensures access when the lock is offline from the EAC system	Available with keypad for two-factor authentication
<b>Credential support:</b>	<p>HID® multiCLASS SE™ technology offers support for the following credentials:</p> <p><b>High Frequency (13.56 MHz):</b> HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESfire® EV1 SE, MIFARE Classic, DESfire EV1</p> <p><b>Low Frequency (125 kHz):</b> HID Prox®, AWID, EM4102</p> <p><b>NFC &amp; BLE-enabled Mobile Phones:</b> HID Mobile Access (BLE and NFC), Seos Apple Wallet (NFC)</p>	Supports HID® 125 kHz Prox or 13.56 MHz iCLASS® contactless credentials

# 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.

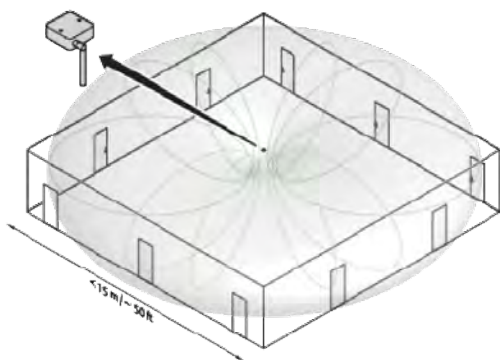
Order String	Description	Max. # Devices Supported by Hubs**	Conductors Required	Communication Interface
AH-20-W14-NNNN	Wiegand Hub	1	12	Wiegand
AH-30-R12-NNNN	Generic RS-485 Hub	16	5	RS-485
AH-30-RN1-(XXXX)*	Mercury-Powered RS-485 Hub	8	5	RS-485
AH-30-R25-NNNN	VertX® Hub	2	5	RS-485
AH-40-IN2-NNNN	IP Hub	64	Cat 5 or higher	IP

\* Replace (XXXX) with Mercury Access Control Manufacturer Partner Code  
 \*\* Must be supported by EAC system

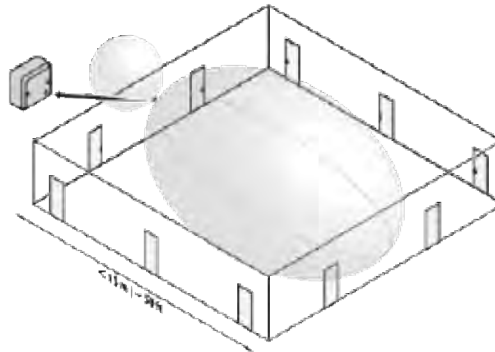
## APERIO® HUB SPECIFICATIONS

Aperio Hub	
<b>Wireless Coverage Range:</b>	Up to 50 feet between the Aperio locking device and communication hub on building environments
<b>Voltage:</b>	8 to 24 VDC
<b>IP Hub:</b>	Supports PoE, IEEE 802.3af compliant Class 1 powered device (PD)
<b>Maximum Standby Current:</b>	80 mA at 12 VDC / 250 mA at 24 VDC
<b>Operating Temperature</b>	41 to 95° F (5 to 35° C)
<b>Operating Humidity:</b>	0 to 95% relative humidity non-condensing
<b>Monitoring:</b>	AH20 includes 4 form C relays for door status monitoring (DPS, REX, battery, tamper)
<b>Options:</b>	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 than 25 feet between the locking device and hub (reference illustrations to the right).

## WIRELESS COVERAGE



With external antenna

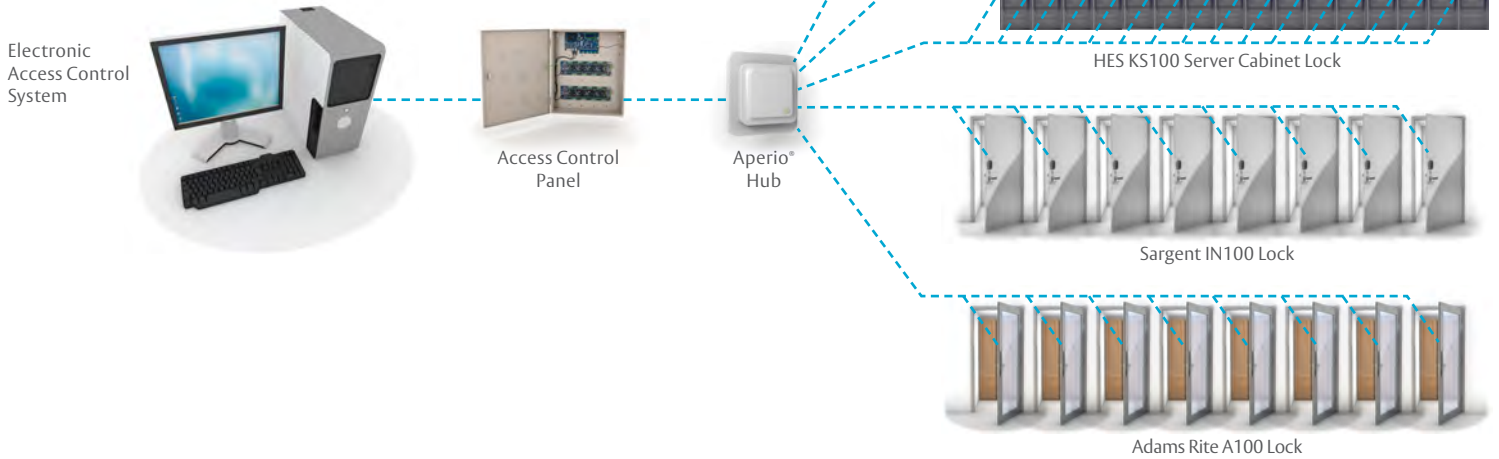


Without external antenna



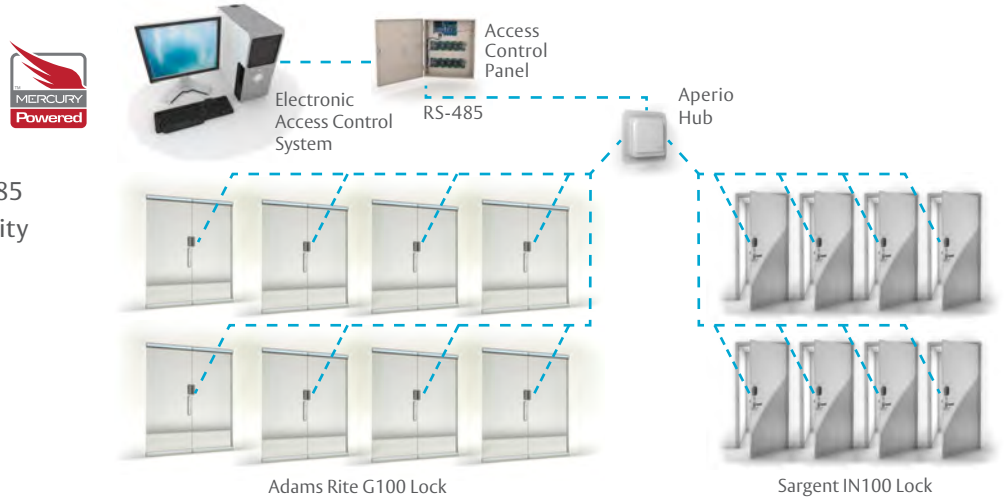
# IP Hub (AH40)

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



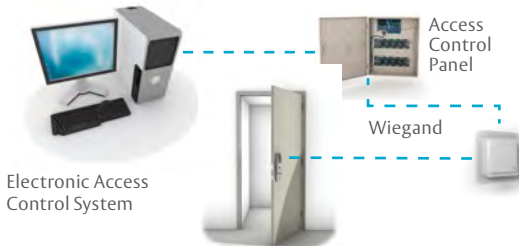
# RS-485 Hub (AH30-R12/RN1)

The Mercury-Powered and standard RS-485 versions of the Aperio hub offer the flexibility and scalability to support up to 16 devices per hub\*.



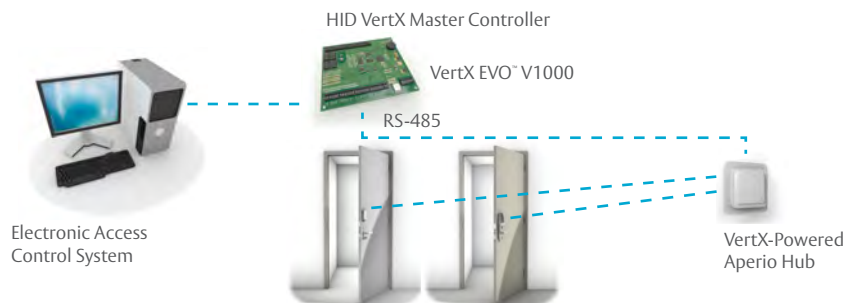
# Wiegand Hub (AH20)

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.



# VertX-Powered Hub (AH30-R25)

The VertX\*-powered Aperio hub connects to the access control system using RS-485 wiring and supports up to two devices per hub.



\* 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.

ELECTRONIC SECURITY HARDWARE  
HES | Securitron

ADAMS RITE | CORBIN RUSSWIN | MEDECO | SARGENT

ASSA ABLOY Opening Solutions  
Door Security Solutions  
110 Sargent Drive  
New Haven, CT 06511  
[www.assaabloydss.com](http://www.assaabloydss.com)  
1 800 DSS EZ4U (377 3948)

ASSA ABLOY Opening Solutions  
Door Security Solutions Canada  
160 Four Valley Drive  
Vaughan, ON L4K 4T9  
[www.assaabloydss.ca](http://www.assaabloydss.ca)  
1 800 461 3007

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