



Aperio[®] Technology



Wireless possibilities for
online access control



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

ELECTRONIC SECURITY HARDWARE

HES | Securitron

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

A100 Narrow Stile Electronic Trim

For use with aluminum
storefront entrances

G100 Digital Glass Door Deadlock

For use with single or
double door all-glass
entrances

CORBIN RUSSWIN

IN100 Lock

For use in commercial and
institutional applications

SARGENT

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.

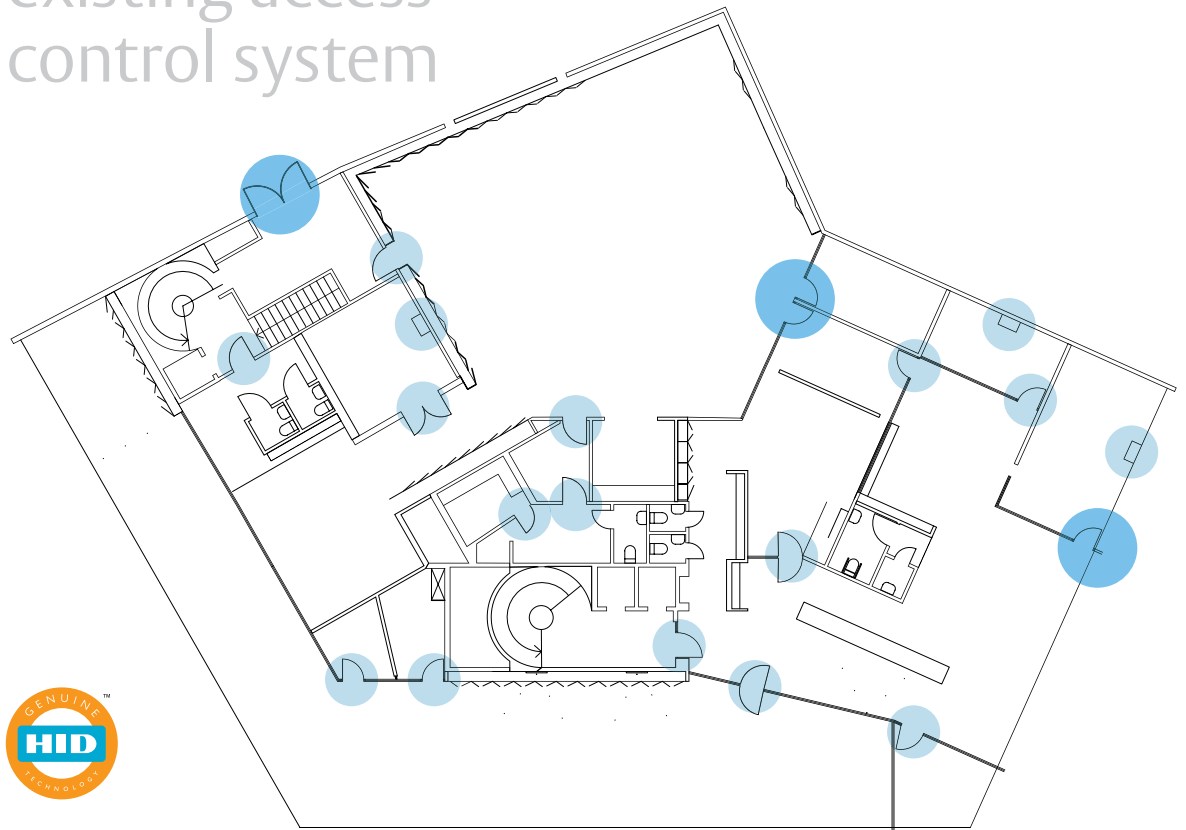
With the global range of Aperio-enabled locks from ASSA ABLOY, online access control can be easy and cost-effective at any opening, with standardization across locations worldwide.

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

SUPPORTED CREDENTIALS

DEVICE TYPE

MONITORING

Brand	Product Name	Typical Applications	125 kHz Prox	13.56 MHz iCLASS	13.56 MHz iCLASS SE	multiCLASS SE	Dual Factor Keypad (1-16 digit pin code)	Narrow Stile Trim	Deadlock	Mortise	Cylindrical	Exit Device	Cabinet Lock	Card Reader	Integrated DPS (Door Position Switch)	Locked State Monitoring	REX (Request to Exit)	Tamper	Battery Voltage	Other
ADAMS RITE	A100	Narrow stile aluminum storefront entrances	•	•			•	•							• †			•	•	
	G100	All-glass single or double doors with a fixed leaf			•				•						•			•	•	
CORBIN RUSSWIN	IN100	Commercial openings (offices, conference rooms, budget sensitive customers); schools				•				•	•	•			•			•	•	
HES	K100	Swinging and sliding cabinet doors and drawers with up to 2-1/4" thickness				•							•		•			•	•	Lock jamb
	KS100	Cam-activated swing handle server cabinet doors with a 150 x 25 mm lock prep				•							•		• †	•		•	•	Cam activation
SARGENT	IN100	Commercial openings (offices, conference rooms, budget sensitive customers); schools				•				•	•	•			•			•	•	
	PR100	Institutional openings (schools, hospitals)	•	•			•			•	•	•			•			•	•	Dead bolt
SECURITRON	R100	Glass, stone or metal surfaces				•								•				•	•	

† Optional accessory purchased separately



A photograph of a modern building's interior. The space is bright and airy, with a high ceiling and large windows. In the foreground, there is a glass-enclosed entrance area with multiple glass doors. To the right, a large, leafy indoor plant stands next to a wooden bench. The floor is highly reflective, mirroring the surrounding architecture and light. The overall design is clean and contemporary.

Wireless *possibilities* for
online access control

Quick, easy *wireless* deployments

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.





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.



FEATURES & BENEFITS

	G100	R100
Works With:	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	Most smooth glass, metal or stone surfaces without the need of additional third party adhesives
Installation:	Surface mounted trim, no cutting or drilling required	Surface mounted, no drilling required for easy installation
Special Features:	Real time REX, DPS, tamper and battery health monitoring	Real time tamper and battery health monitoring
Design:	Non-handed with Lever knob	Tamper and weather resistant protected by integrated monitoring
Key Override:	N/A	N/A
Options:	N/A	Adhesive aluminum dress cover plate (R100-DPK)
Credential Support:	High Frequency (13.56 MHz): HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESFire® EV1 SE, MIFARE Classic, MIFARE DESFire EV1, NFC-enabled mobile phones	Supports HID multiCLASS SE® card technologies High Frequency (13.56 MHz): HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESFire® EV1 SE, MIFARE Classic, MIFARE DESFire EV1, NFC-enabled mobile phones Low Frequency (125 kHz): HID Prox®, Kantech ioProx, AWID, EM4102



Access control in a flash

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

A100

Works With:	Adams Rite MS® Series Deadlocks, 4500/4900 Series Deadlatches, and 8000 Series Exit Devices; Yale 7200 Series and Corbin Russwin ED4000 Series Rim Exit Devices
Installation:	Surface mounted with concealed fasteners for 1-3/4" to 2-1/4" [44.5 mm to 57.2 mm] door thickness
Special Features:	Field-selectable handing using clutched-protected lever
Design:	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
Key Override:	5-pin mortise cylinder
Options:	Dual-factor authentication when using keypad (1-16 digit pin codes); Request to Exit and Door Position Switch (sold separately)
Credential Support:	<ul style="list-style-type: none">• High Frequency (13.56 MHz): HID 13.56 MHz iCLASS® (ISO 15693)• Low Frequency (25 kHz): HID Prox®

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
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	External Door Status Monitoring (KS-DPS)
Credential Support:	<ul style="list-style-type: none"> High Frequency (13.56 MHz): HID iCLASS[®], HID iCLASS SE[®] (SIO-enabled), HID iCLASS[®] Seos[®], HID MIFARE[®] SE, HID DESFire[®] EV1 SE, MIFARE Classic, MIFARE DESFire EV1, NFC-enabled mobile phones Low Frequency (25 kHz): HID Prox[®], Kantech ioProx, AWID, EM4102 	<ul style="list-style-type: none"> High Frequency (13.56 MHz): HID iCLASS[®], HID iCLASS SE[®] (SIO-enabled), HID iCLASS[®] Seos[®], HID MIFARE[®] SE, HID DESFire[®] EV1 SE, MIFARE Classic, MIFARE DESFire EV1, NFC-enabled mobile phones Low Frequency (25 kHz): HID Prox[®], Kantech ioProx, AWID, EM4102



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
Hardware:	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
Installation:	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
Monitoring:	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
Special features::	<ul style="list-style-type: none"> 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 Support for passage mode scheduling offers convenience for office environments 	N/A
Available in:	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
Options:	Patent-pending credential cache ensures access when the lock is offline from the EAC system	Available with keypad for two-factor authentication
Credential support:	<ul style="list-style-type: none"> 13.56 MHz credentials (SE option): HID iCLASS®, iCLASS SE® (SIO-enabled), iCLASS Seos®, SIO® on MIFARE Classic®, SIO® on MIFARE DESFire EV1, MIFARE Classic, DESFire EV1, and HID Mobile Access® powered by Seos® for use with NFC- and Bluetooth Smart-enabled mobile phones 125 kHz credentials (PA option): HID Prox, Kantech ioProx, AWID, EM4102 	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.

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	8	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	16	Cat 5 or higher	IP

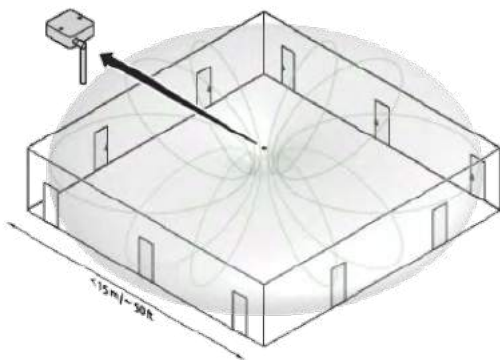
* Replace (XXXX) with Mercury Access Control Manufacturer Partner Code

APERIO® HUB SPECIFICATIONS

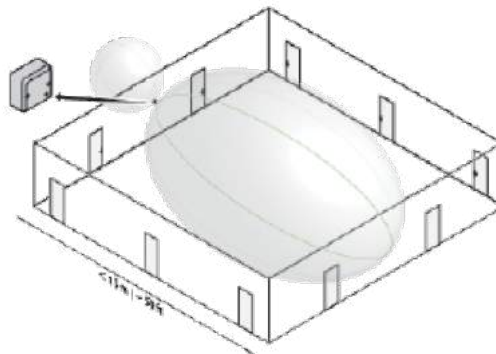
Aperio Hub

Wireless Coverage Range:	Up to 50 feet between the Aperio locking device and communication hub on building environments
Voltage:	8 to 24 VDC
IP Hub:	Supports PoE, IEEE 802.3af compliant Class 1 powered device (PD)
Maximum Standby Current:	80 mA at 12 VDC / 250 mA at 24 VDC
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 than 25 feet between the locking device and hub (reference illustrations to the right).

WIRELESS COVERAGE



With external antenna

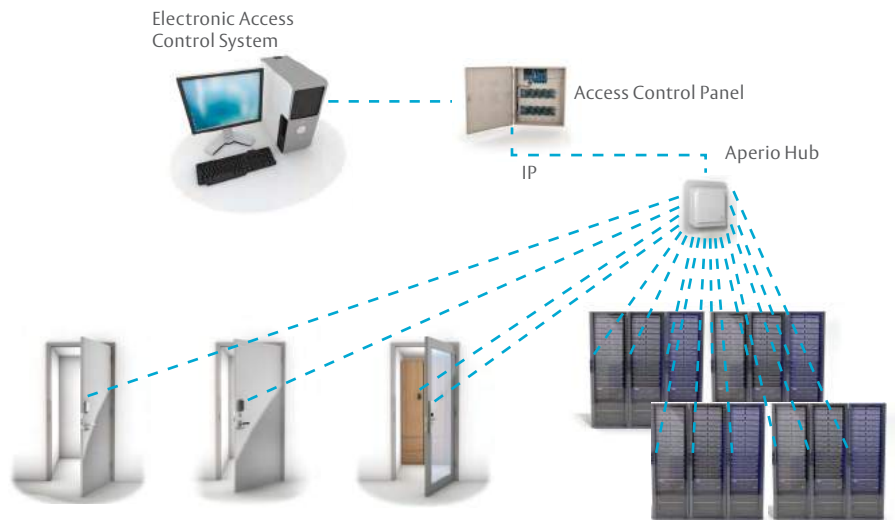


Without external antenna

IP Hub

(AH40)

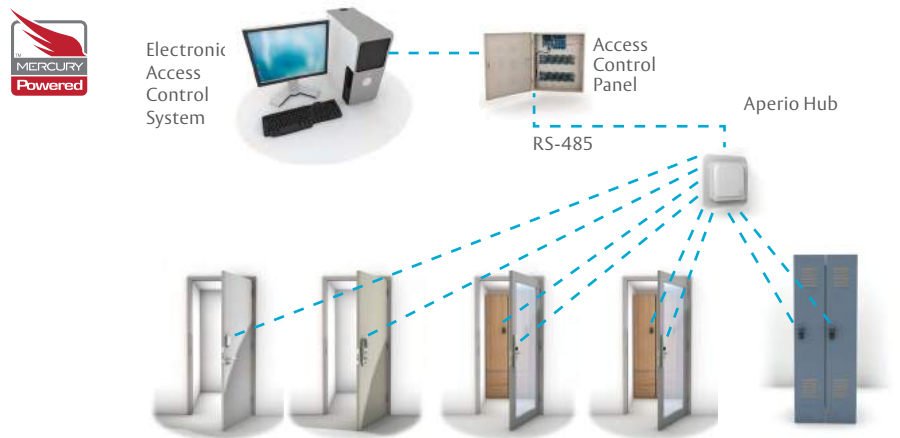
The IP Aperio hub uses standard Ethernet cabling to connect to IP-based access control systems and supports up to 16 devices per hub.



1:8 Hub

(AH30-R12/RN1)

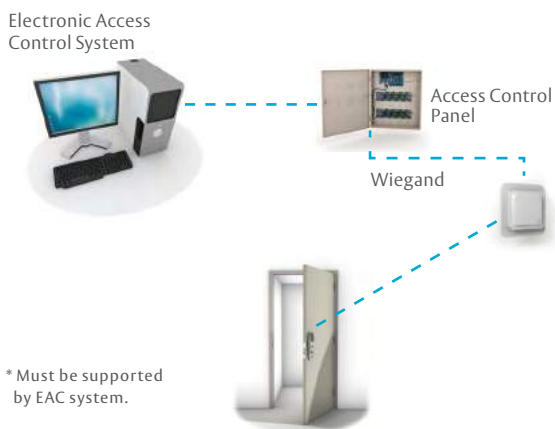
The Mercury-Powered and standard RS-485 versions of the Aperio hub offer the flexibility and scalability to support up to eight devices per hub*.



Wiegand Hub

(AH20)

Industry standard Wiegand output offers easy integration with many popular access control systems.

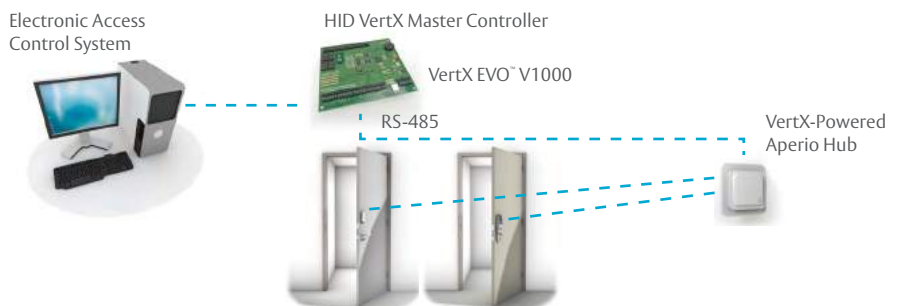


* Must be supported by EAC system.

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.



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, locks, perimeter fencing, access control and service.

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