



ASSA ABLOY Aperio® Wireless Lock Technology Integration with EntraPass



Key Features

- Real-time communication with Kantech KT-1-PCB and KT-400 door controllers, and EntraPass security management software and control
- Convenient and easy to integrate with new and existing EntraPass installations
- Utilizes low-power IEEE 802.15.4 wireless communication between the Aperio lock and hub
- All access and scheduling decisions made through the powerful Kantech KT-1-PCB and KT-400 controllers
- Real-time reporting such as card access transactions, door status, low battery and tamper alarm monitoring
- Wireless communication protected through 128-bit AES encryption
- Aperio IN100 wireless lock available with Kantech ioProx functionality¹
- Aperio IN100 wireless lock supports all ioProx credentials (P10SHL, P20DYE, P30DMG, P40KEY, P50TAG)

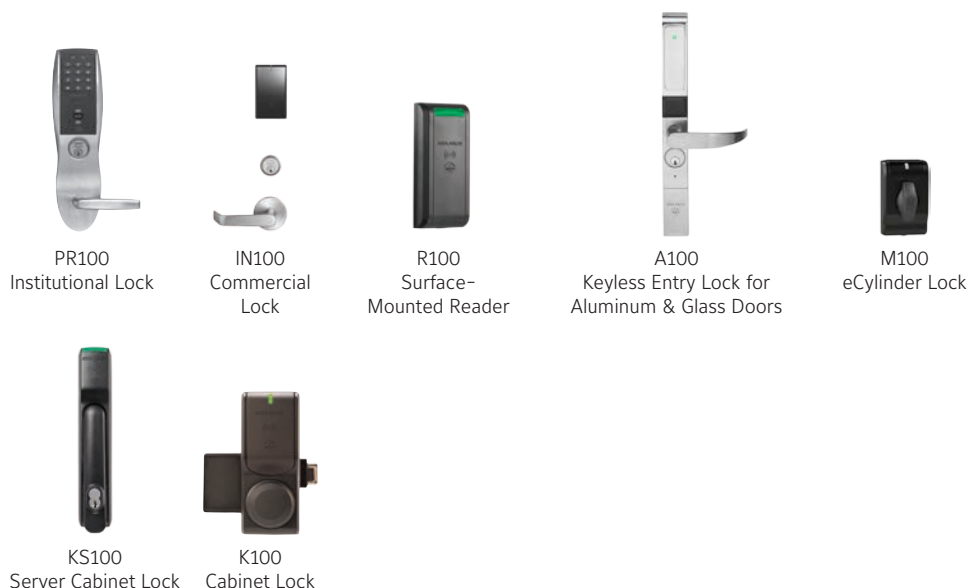
Kantech's EntraPass Security Management Software integrates with ASSA ABLOY Aperio wireless lock technology giving you the flexibility to expand your access control system to almost every opening in your facility. These locks become part of the EntraPass ecosystem and can be managed from the EntraPass interface for a unified security management experience. This means that locks can be part of the events, reports, maps, etc. that are core to the everyday security management with EntraPass software.

The access control decisions on these locks are made by the state-of-the-art and reliable Kantech KT-1-PCB and KT-400 controllers. The Aperio wireless locks on these controllers can be added without taking the current door ports away, meaning the wireless locks can be added to the controllers incrementally simply by purchasing the appropriate software license. Aside from one fully wired door, KT-1-PCB can also support eight additional wireless locks. Similarly, the KT-400, which supports four fully wired doors, can support eight additional wireless locks⁴. The locks communicate wirelessly with the Aperio hub which is hard-wired to the Kantech controller. The wireless communication between the hub and the locks is protected with 128-bit AES encryption for protected communication. Online transactions mean that EntraPass is updated in real-time, providing a high level of control and visibility of door actions.

With no need for additional wiring, ASSA ABLOY Aperio locks can be installed or retrofitted at existing facilities with little or no operational disruption. The locks come in a variety of form factors that accommodate a wide range of interior environments including mortise, cylindrical, and exit devices for standard doors and an electronic cylinder that replaces a traditional mechanical keyed cylinder. Aperio technology is also available in a wireless cabinet lock format which can be used for cabinets, lockers, and drawers. This is ideal in healthcare facilities for storing equipment, drugs, patient files, and valuables. And, there's even a model for server racks which greatly improves the monitoring and security level of data centers.

Key Features (cont.)

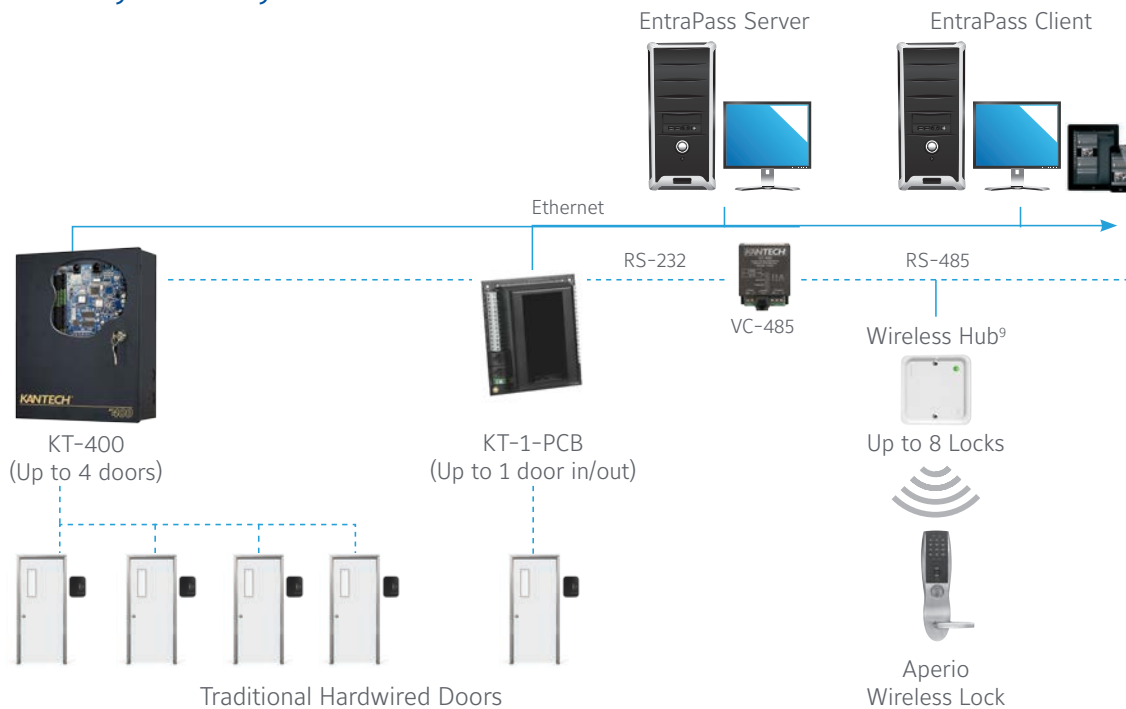
- Card formats supported: HID Proximity 26-bit, Kantech KSF and ioProx, Corporate 1000 (35- and 48-bit), iCLASS Access ID (Wiegand part: 26-bit, Corporate 1000 35-bit, 48-bit), MIFARE 32-bit, Smartcard UID (or CSN), and MIFARE DESFire Smartcard^{2, 3}
- Locks built on a robust Grade 1 mechanical platform for durability
- Heavy-duty locks available in mortise, cylindrical and exit style trim
- Available in cabinet lock and server rack lock formats



Specifications

Requirements	EntraPass SE, CE and GE (v7.0 or higher), ASSA ABLOY Dealer Certification, VC-485 Communication Interface, License Per Lock
ASSA ABLOY Aperio Support Requirements⁵	
Kantech Controller Support	KT-1-PCB and KT-400
Max # of Aperio Locks	
Per KT-1-PCB	8 (v8.10 or higher)
Per KT-400	8
<i>1 VC-485 required per controller</i>	
Max # of Aperio Hubs per Controller	8
Supported Integrations per Controller ⁶	2
Aperio Wireless Hub	
Dimensions (H x W x D)	82 x 82 x 37 mm (3.25 x 3.25 x 1.5 in)
Power Supply	8 – 24V DC
Power Draw	250 mA max, minimum 80mA at 12V DC
Wireless Operating Range	25 m (depending on the building environment)
Wireless Transmit Power	10 dBm/MHz
Operating Temperature	5°C to 35°C (41°F to 95°F)
Humidity	<95% non-condensing
Aperio Features Supported ^{7, 8}	<ul style="list-style-type: none"> • Wireless device tamper in alarm • Wireless device offline/online • Radio disturbance detected/cleared • Battery status low • Wireless device door state/lock state/handle state

Wireless Lock System Layout



- (1) Kantech ioProx functionality is only supported with Aperio IN100 locks (firmware v3.5.x or higher). Aperio IN100 v3 locks with firmware below v3.5.x could potentially be upgraded to v3.5.x for Kantech ioProx support by obtaining the firmware and instructions from ASSA ABLOY and/or Kantech. Contact ASSA ABLOY or Kantech Technical Support for possible upgrade. ioProx support is not available in the EMEA region.
- (2) The read range of card credentials and key tags on wireless locks is expected to be lower than a typical standalone reader.
- (3) Kantech ioProx credential support for ASSA ABLOY Aperio IN100 locks only. For HID iCLASS, MIFARE and DESFire cards, Aperio locks can read card serial number (CSN) only
- (4) Additional software license is required to be purchased
- (5) For detailed specifications for each Aperio lock, go to www.intelligentopenings.com/Aperio.
- (6) DSC integration with KT-1-PCB or KT-400 is over IP when integrating with wireless locks
- (7) Features not supported at this time: double swipe, scheduled unlock (supported with v3 Aperio locks), manual (host) unlock (supported with v3 Aperio locks) and area control/anti-passback. Heartbeat to support Door schedule only supported with Aperio IN100 locks (firmware v3.5.x or higher).
- (8) Limitations: unlock schedule (supported with v3 Aperio locks) and first man-in require a card swipe (valid or invalid), no hard-wired DSC integration if using Aperio integration, and best to use for low-traffic doors due to limited battery life
- (9) Up to 8 Wireless Hubs per KT controller for a total of 8 locks per

About Johnson Controls

Johnson Controls is a global diversified technology and multi-industrial leader serving a wide range of customers in more than 150 countries. Our 120,000 employees create intelligent buildings, efficient energy solutions, integrated infrastructure and next generation transportation systems that work seamlessly together to deliver on the promise of smart cities and communities. Our commitment to sustainability dates back to our roots in 1885, with the invention of the first electric room thermostat.