



ALLEGION™

# EAC application guide

**Electronic access control  
solutions featuring aptiQ™, LCN®,  
Schlage® and Von Duprin®**

# We deliver the hardware.

## Electrified exit devices and pushbars

Safe, fast egress for fire and life safety applications.

## Electromagnetic locks

Robust, easy to install and secure solutions for high security, traffic control and specialty applications.

## Power supplies

The configurable power behind your electrified devices.

## System accessories

Variety of pushbuttons, keyswitches, request-to-exit devices, monitoring stations and other accessories that allow you to customize a solution.

## Electric strikes

Broad range compatible with a variety of locksets and exit devices.

## Biometrics

Ultimate security where and when it's needed.

## Readers

Multi-technology solution for secure access anywhere.



**aptiQ™**

aptiQ smart technology enhances the intelligence of products through a secure, open architecture design in readers, credentials, and smart phone applications. aptiQ seamlessly interfaces and communicates with a variety of products, and provides a platform that easily adapts as new innovations enter the marketplace.

**XceedID®**

XceedID offers easy, convenient access control solutions. Proximity products from XceedID include cost-effective readers and credentials that can be easily integrated into existing legacy proximity systems.

**SCHLAGE®**

For more than 90 years, Schlage has been creating the strongest and most technologically advanced security products for homes, multi-family, commercial and institutional buildings.

# You deliver results.

## Standalone and networked locks

Combines the reader, lock and status monitors into one device for easier installation.

## Wireless devices

Ideal for remote and hard-to-wire applications.

## Power operators and closers

Ideal for high-traffic and ADA applications.

## Electrified locks

High-security that can be managed remotely.

## Credentials

Smart solutions for controlling access and more.



## LCN®

Since 1876 LCN has been the undisputed innovator and leader in the door control. LCN products include surface and concealed door closers, ADA-compliant automatic door operators, and electronic accessories that protect the opening and enhance the overall safety and security of a facility.

## VON DUPRIN®

Since pioneering the first exit device in 1908, Von Duprin life safety products have provided unparalleled quality, performance and flexibility for schools, hospitals, stadiums and public buildings.

# Open architecture

No matter what access control challenges you may face or what type of client you support, we can help make security integration seamless and simple.

Our innovative solutions feature open technology and are designed to adapt to any environment, enabling streamlined integration with virtually any access control system you install and support.

## Broader solutions through alliances

Our aptiQ™ and AD Series alliances with leading access control and technology providers allow you to offer a broader range of products and services that can help you meet your customer's unique security needs - all with a single credential.

## Suited to

Our products are designed to work together to address a wide range of security needs within a facility, from low security applications to high security applications, everything in between.

# Works everywhere you do

From small retail spaces with just a handful of users to complex university campuses and healthcare systems, we can help you put together the right solution for every access point.

**Commercial Real Estate**

**Healthcare**

**Mixed-Use Properties**

**Education**

**Retail**

**Government**

**Industrial**

## Technology

Engineered to work across a wide variety of facility, from standard applications and

even.



It's your job to deliver the right solutions to your clients. It's our job to make sure we offer industry leading technology, innovative products and comprehensive services to you.

#### **Versatile solutions for a changing world**

We can help you develop smart solutions that are tailored to meet the business needs of your client base. Our broad portfolio of access control hardware, complemented by our alliances with leading technology providers, enables you to offer cost effective solutions that deliver results both today and in the future.

Our approach to electronic access control is simple - offer products and programs that are:

- Developed on open platforms to provide your customers with flexible, adaptable and scalable solutions that maximize return on investment.
- Integrated with industry leading access control systems to provide the broadest set of features and capabilities.
- Connected by our growing team of aptiQ™ alliances to extend the solution beyond access control including logical access, cashless payment, secure printing and more.
- Designed with feedback from integrators and industry experts to help you realize more profit in every project and more productivity across your business.

#### **Support you can depend on**

We know that your #1 priority is to solve problems for your clients, no matter the location, size or industry. Our integrator sales force can provide support before, during and after the sale to ensure you are able to deliver the most effective solution. They are backed by 350 local sales professionals and specification writers who are ready to help you put together the right solution for your customers.

To connect with your local sales office or a member of our Customer Care team please call 877.671.7011.



# No two doors – and no two customers – are alike

This reference tool will provide you with a range of options that address a variety of needs. From standalone to networked and hardwired to wireless, this guide can be used as a reference tool for designing custom solutions that every level of security and every type of access point.

## In this guide

We have organized the following pages into five categories of applications to make it easier for you to find what you are looking for:

---

**Standard application - page 8:** Access control used to secure the perimeter access points in real time; featuring hardwired card readers and system accessories including electrified locks, electric strikes and electromagnetic locks.

---

**High security application - page 13:** Access control used to control highly restricted or sensitive openings; featuring multi-factor authentication or biometrics.

---

**Interior openings and upgrades - page 16:** Access control used predominantly in retrofit applications; featuring integrated electronic locks which eliminate the need to run wires to each opening.

---

**Specialty - page 20:** Access control used in remote or hard to reach areas; featuring wireless devices which eliminate the need to run wires to challenging locations.

---

**Standalone - page 24:** Access control that is typically applied to openings that do not require monitoring or updating in real time.

---

### Technical documentation and training

We offer a comprehensive technical library and a variety of sales tools to help your team design the right solution for every opening.

Please visit [www.allegion.com/us](http://www.allegion.com/us) for easy access to the following:

- Electronic Access Control digital catalog
- Data sheets
- Wiring diagrams
- AD Series solution sheets
- aptiQ™ alliance program info
- Installation and user guides
- How-to videos
- Training programs
- And more



For easy access to support documentation and videos download the Schlage electronics how-to mobile APP from iTunes or the Android Market.

## Standard application

# Office entrance

Tenants are looking for flexible access control solutions that allow them to work with what they currently have in place without making major new investments. Our aptiQ™ readers are designed on an open platform and can work with a variety of credential technologies, from PINs to proximity to smart. An NFC-enabled smart phone can also be used.



## Benefits of multi-technology readers



With aptiQ multi-technology readers your customers can use either proximity, smart cards or an NFC-enabled smart phone in their existing system. This allows for an easy transition to upgraded technology over time and as budgets allow.

## Featured products

- 1 aptiQ MTK15 multi-technology reader
- 2 aptiQ smart credential
- 3 Von Duprin RX99 electrified rim exit device with E996L trim
- 4 LCN 1460 door closer (not shown)
- 5 Von Duprin EPT 10 electronic power transfer (not shown)

## Ideal for

- Office suites
- Government buildings
- Light commercial buildings



## Standard application

# Corridor traffic control

Double doors can often be used to control traffic in a hallway or corridor. Electronic trim can be utilized to ensure that only authorized individuals have access to secure areas and can enable centralized lockdown at a moment's notice.



## Benefits of AD Series locks



The AD Series combines the electrified lock, reader, door position and REX switches together into one device for simplified installation and connection to the access control panel. Hardwired and wireless options are available.

## Featured products

- 1 Von Duprin RX 9949 series exit device
- 2 Schlage AD-300-993R hardwired electronic exit trim
- 3 Schlage PIB300-2D panel interface board\* (not shown)
- 4 LCN 4030 closer (not shown)
- 5 Ives 5BB TW8 electrified hinge

\* Required for Wiegand applications. AD-300 hardwired devices can be connected direct to the ACP via RS-485. See AD Series access control alliances info for specific integration details.

## Ideal for

- Hospitals
- Surgical centers
- Medical office buildings

Standard application

# Secondary exit

Perimeter exits and entrances require both secure access control and reliable door operation that is in compliance with life safety codes.



### Benefits of Von Duprin electric strikes



Von Duprin electric strikes are available with a wide breadth of factory customizable options for virtually any application. They feature heavy duty stainless steel construction for use with single, double, and fire-rated doors.

### Featured products

- 1 aptiQ™ MTK15 multi-technology reader
- 2 Von Duprin RX 98/99 exit device
- 3 Von Duprin 6111 electric strike
- 4 LCN 4040XP door closer
- 5 Schlage 7766 door position switch

### Ideal for

- Office buildings
- Commercial buildings
- Industrial buildings
- Medical offices

**Standard application**

# Automated employee entrance

This automated opening serves as a secure perimeter entrance that combines electronic access control with ADA-compliant accessibility.



**Benefits of quick connect wiring harness**



With the quick connect wiring harness, you no longer have to juggle a reader while wiring it to the controller wires. Once the wires are connected, you simply plug the wiring harness into the back of the reader. An internal gasket creates a tight seal, preventing water and dust from entering the reader.

**Featured products**

- 1** aptiQ™ MTK15 multi-technology reader
- 2** LCN 4600 auto operator with 8310 actuator
- 3** Von Duprin RX 99 exit device
- 4** Von Duprin 6300 electric strike (not shown)
- 5** Schlage PS902 power supply (not shown)

**Ideal for**

- Industrial buildings
- Commercial buildings
- Office buildings
- Restaurants

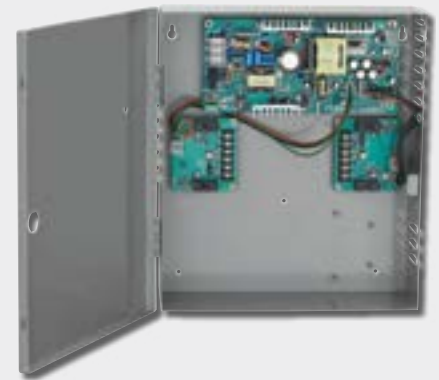
## Standard application

# Stairwell opening with delayed egress

Doors with delayed egress are used where it's critical that staff have time to verify identity and secure an individual, if needed, before the door opens.



## Benefits of Schlage and Von Duprin power supplies



Schlage and Von Duprin power supplies feature a flat mounting design and polarized locking connectors for option boards. This design eliminates the need for racks and side connectors, and provides easier access to the terminal blocks for connection of peripheral devices including strikes, electromagnetic locks and card readers.

## Featured products

- 1 aptiQ™ MT15 multi-technology reader
- 2 Von Duprin CX99-F Chexit® device
- 3 Von Duprin PS914 power supply (not shown)
- 4 Schlage 679 door position switch
- 5 Von Duprin EPT 10 electronic power transfer

## Ideal for

- Long-term care centers
- Maternity suites
- Psychiatric facilities
- Correction facilities
- Retail outlets

## High security application

# High security card access

High security areas like laboratories, records offices and server equipment rooms typically have a limited number of users, but require a very high level of security to protect private, dangerous or expensive materials, goods or information.



## Benefits of multi-factor authentication



aptiQ™ smart cards utilize encrypted technology to offer the highest in credential security. Using an aptiQ multi-technology reader with keypad to implement multi-factor authentication can offer even more security by requiring both a card and PIN before anyone enters a restricted area.

## Featured products

- 1 aptiQ MTMSK15 multi-technology reader
- 2 aptiQ smart cards
- 3 Von Duprin 6211 electric strike (not shown)
- 4 Schlage RX mortise lever lock
- 5 Schlage PS902 power supply (not shown)

## Ideal for

- Research laboratories
- Biohazard areas
- Pharmaceutical areas
- Data centers

High security application

# High security biometric access

Biometric readers deliver the highest level of security possible because there are no credentials to be lost, stolen or duplicated. Biometrics allow you to truly verify that the right person is entering an opening at the right time. This type of security can work for perimeter and interior openings in sensitive areas where access must be tightly controlled.



### Benefits of biometric hand geometry



Hand geometry measures the unique size and shape of an individual's hand making it highly reliable and secure. Hand readers provide the best combination of speed and accuracy, making them the easiest biometric to use.

### Featured products

- 1 Schlage HandKey™ II biometric hand reader
- 2 Schlage L9080 RX mortise lock
- 3 Von Duprin 6211 electric strike (not shown)
- 4 Schlage 679-05 door position switch (not shown)
- 5 Schlage PS902 power supply (not shown)

### Ideal for

- Server rooms
- Data centers
- Biomedical
- Financial institutions
- Records rooms

## High security application

# Biometric for visitor access

Biometrics provide peace of mind and protect your most valuable assets, including children. When placed at an entrance to a K-12 school or day care center, biometrics can be used to manage access of parents, visitors and staff throughout the day.



## Benefits of biometrics for visitor access



Hand readers ensure that only authorized people are entering a school or day care. And through the use of our free HandNet™ for Windows® software, you can easily manage entries and enrollments without investing in an access control system.

## Featured products

- 1 Schlage HandKey™ II biometric hand reader
- 2 Von Duprin 6111 electric strike (in mullion not shown)
- 3 LCN 4040 XP closer (not shown)
- 4 Schlage Scan II motion sensor (not shown)
- 5 Schlage PS902 power supply (not shown)

## Ideal for

- Day care facilities
- Early childhood centers
- K-12 entrances

Interior openings and upgrades

# Dormitories and historic buildings

Upgrading to access control can be challenging, especially with historic buildings or brick and concrete construction. AD-400 wireless locks provide the benefits of hardwired access control without the need to run wires all the way to the opening.



### Benefits of AD-400 real time wireless with Wake Up on Radio™ feature



The unique Wake Up on Radio™ feature enables centralized unlock or lockdown in 10 seconds or less, which is critical in emergency situations. The AD-400 sends real-time audits and alerts from the lock to the host, including door forced, low battery, and tamper.

### Featured products

- 1** Schlage AD-400 wireless lock
- 2** Schlage PIM400-485 panel interface module\* (not shown)
- 3** aptiQ™ smart cards

\* See AD Series access control alliances info for specific integration details.

### Ideal for

- Universities
- Boarding schools
- Classrooms
- Older historic buildings
- Crew camps



## Interior openings and upgrades

# Interior stairwell

Stairwell doors sometimes require controlled access to various floors within the building, while ensuring safe egress in the event of an emergency. The AD-400-993 exit trim can be used to upgrade existing Von Duprin 22/22F, 98/99 and 98/99XP, as well as Falcon® 25 Rim exit devices to networked access control.



### Benefits of AD-400 with adaptable reader modules



The AD Series was designed to be adaptable, and provide an easy and cost-effective way to migrate to newer credential technologies if requirements change in the future. Reader and communication modules can be upgraded without taking the lock off the door.

### Featured products

- 1 Schlage AD-400-993R wireless exit trim
- 2 Schlage PIM400-485 panel interface module\* (not shown)
- 3 Von Duprin RX-LC 99 rim fire-rated exit device
- 4 aptiQ™ smart cards

\* See AD Series access control alliances info for specific integration details.

### Ideal for

- Office buildings
- Commercial buildings
- Industrial buildings

Interior openings and upgrades

# Government and military applications

Upgrading to meet FIPS 201-1 compliance can be challenging from the standpoint of time and money. The AD-401 is the only integrated wireless electronic lock that is designed for applications which require approval from the U.S. Federal Government under HSPD-12 for FIPS 201-1 compliance.



### Benefits of AD-401 wireless with FIPS 201-1 compliant readers



The AD-401 wireless lock with FIPS 201-1 compliant reader makes it easy to upgrade existing facilities with minimal disruption by eliminating the need to run wires to each opening. AD Series wireless locks are typically installed in less than two hours at the door.

### Featured products

- 1 Schlage AD-401 wireless locks with FIPS 201-1 compliant reader
- 2 Schlage PIM400-485 panel interface module\*

\* See AD Series access control alliances info for specific integration details.

### Ideal for

- Military barracks
- Government buildings
- VA hospitals

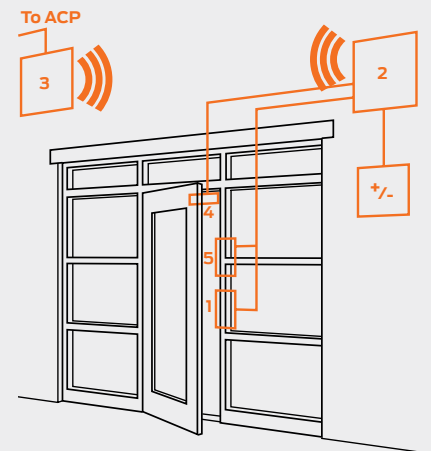
## Interior openings and upgrades

# Two-story entrances

Installing electronic access control on two-story entrances can be difficult; cost and complexity are often directly related to building age and type of construction. The WRI400 wireless reader interface can be used to connect the reader to the access control system without having to run new wires up and over the ceiling.



### Benefits of WRI400 wireless reader interface



The WRI400 wireless reader interface is a networked access point controller designed to provide wireless connectivity to traditional electronic access control components, including standard Wiegand readers, door position, tamper, and request to exit switches.

### Featured products

- 1 aptiQ™ MT11 multi-technology reader
- 2 Schlage WRI400 wireless reader interface (not shown)
- 3 Schlage PIM400-TD2 panel interface module\* (not shown)
- 4 Schlage M400 electromagnetic lock\*\*
- 5 Schlage 621 interior push button release (not shown)

\* See AD Series access control alliances info for specific integration details.

\*\* Where applicable by local code.

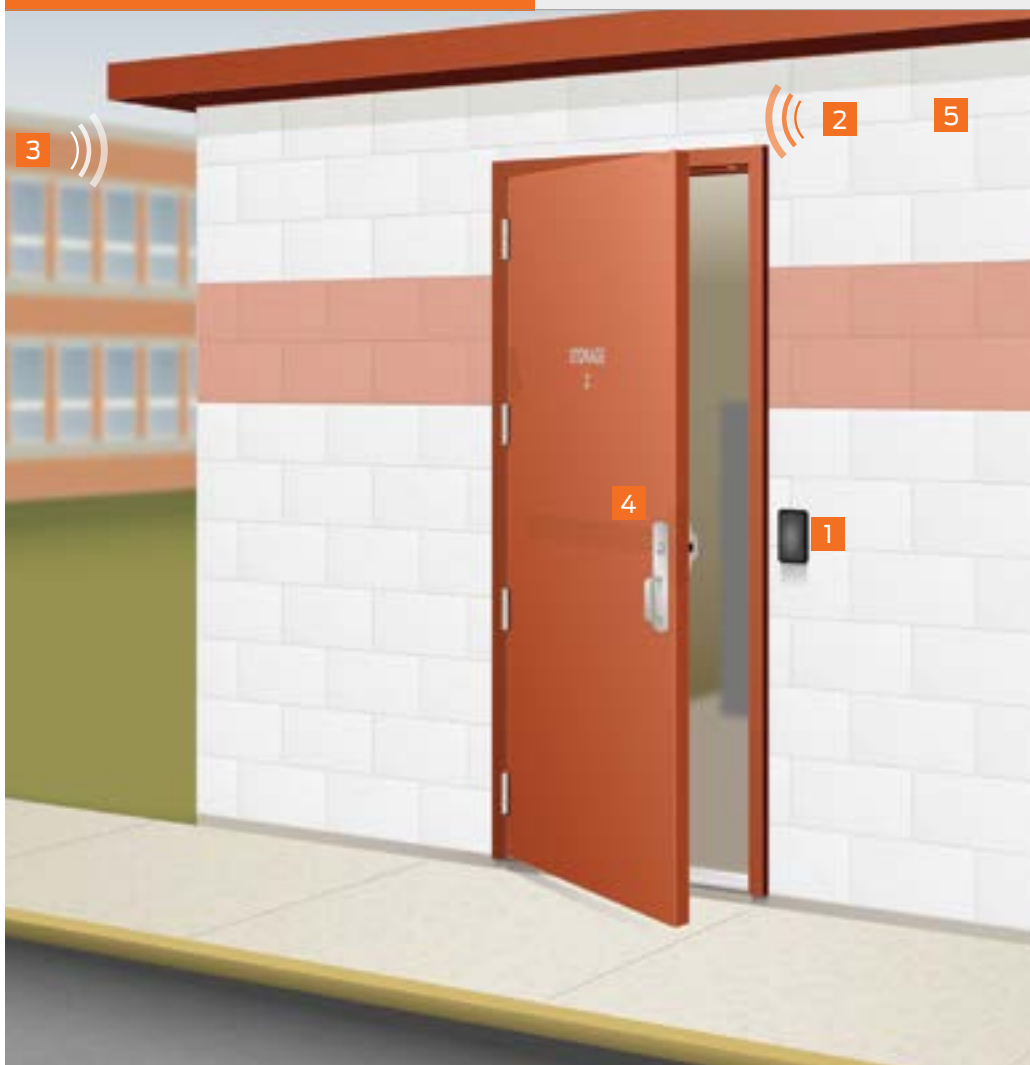
### Ideal for

- Commercial offices
- Medical offices
- Retail outlets

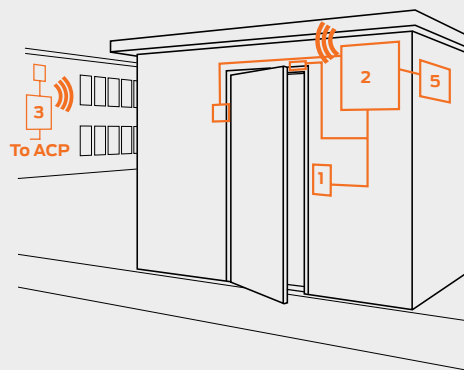
## Specialty

# Remote building/ storage shed

Extending access control to remote buildings and storage sheds can be simplified by using wireless technology that seamlessly integrates into existing access control systems.



### Benefits of WRI400 wireless reader interface



The WRI400 has a communication range of up to 1,000 ft. with clear line of sight. Remote antennas can be used to increase the range when needed. The WRI400 eliminates the need to dig a trench to the storage shed, saving time and money associated with equipment rental and running wires under ground.

### Featured products

- 1 aptiQ™ MT15 multi-technology reader
- 2 Schlage WRI400 wireless reader interface (not shown)
- 3 Schlage PIM400-TD2 panel interface module\* with ANT400 remote antenna (not shown)
- 4 Von Duprin RX EL99NL rim exit device
- 5 Von Duprin PS914 power supply (not shown)

\* See AD Series access control alliances info for specific integration details.

### Ideal for

- Utility buildings
- Equipment buildings
- Storage facilities
- Maintenance facilities

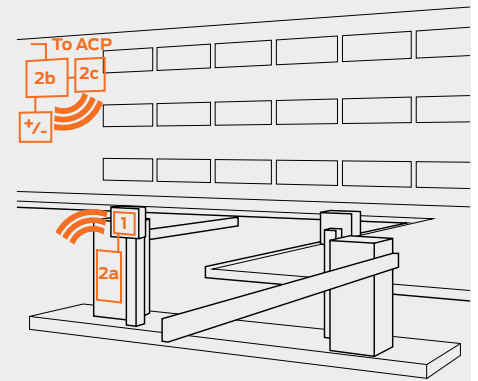
## Specialty

# Parking gate

Controlling access to parking gates can be simplified by using wireless technology. Open architecture enables seamless integration with virtually any access control system.



### Benefit of the Schlage GCK400 gate control kit



The GCK400 wireless gate kit is ideal for upgrading to real time access control on garage and parking lot entries. The GCK400 kit features open architecture devices and is compatible with popular Wiegand and Clock & Data format readers.

### Featured products

- 1 aptiQ MTK15 multi-technology reader
- 2 Schlage GCK400 wireless gate kit which contains:
  - a Schlage WRI400 wireless reader interface
  - b Schlage PIM400-TD2 panel interface module\*
  - c ANT400-REM-I/O remote antenna with MGB-MCA5 grounding kit

\* See AD Series access control alliances info for specific integration details.

### Ideal for

- Commercial office parking facilities
- Healthcare parking facilities
- College/University parking facilities

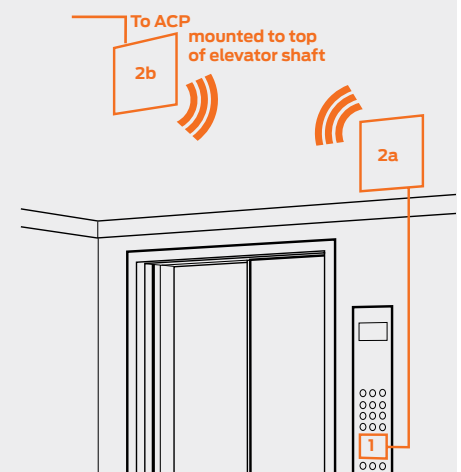
Specialty

# Elevators

Restricting access via elevators to specific floors can be simplified by using wireless technology that seamlessly integrates into existing access control systems.



## Benefits of the Schlage ECK400 elevator control kit



The ECK400 wireless elevator kit is ideal for retrofit applications, it eliminates the need to run traveling cables inside the elevator shaft. The reader is connected to the WRI400 on top of the cab. The WRI400 communicates over 900 MHz to the PIM400 on top of the shaft. The PIM400 is wired back to the ACP for real time monitoring.

### Featured products

- 1 aptiQ™ MTMSK15 multi-technology reader
- 2 Schlage ECK400 wireless elevator kit which contains:
  - a Schlage WRI400 wireless reader interface (not shown)
  - b Schlage PIM400-TD2 panel interface module\* (not shown)
  - c ANT400-REM-I/O remote antenna (not shown)

\* See AD Series access control alliances info for specific integration details.

### Ideal for

- Research facilities
- Commercial offices
- Financial institutions
- Technology companies
- Law firms

## Specialty

# Portable guard or muster stations

The WPR400 wireless portable reader can be used to extend the perimeter of any facility at a moment's notice or to validate credentials at remote or temporary access points.



### Benefits of WPR400 wireless portable reader



The WPR400 can validate credentials in real time when in range of the PIM400-TD2, which is connected to the access control panel. The WPR400 is capable of operating in cache mode, and when enabled, it keeps a local database of valid access grants. Upon moving the WPR400 to a location that is out of range the local database can be used to verify up to the last valid 1,000 users.

### Featured products

- 1 Schlage WPR400 wireless portable reader
- 2 Schlage PIM400-TD2 panel interface module\* (not shown)
- 3 aptiQ™ smart card

\* See AD Series access control alliances info for specific integration details.

### Ideal for

- Construction sites
- Remote job sites
- Muster stations
- Temporary entrances
- Event entry points

**Standalone**

# Classroom lockdown solution with remote lockdown fob

The CO-220 is ideal for schools that are looking to upgrade classroom level security but do not have the budget for a fully networked access control system. It is an affordable standalone solution that allows immediate local lockdown by simply pushing the button on the remote fob from anywhere in the classroom.



### Benefits of CO-220 classroom security with remote lockdown key fob



The remote fob sends an immediate lockdown command to the lock. An illuminated visual indicator located on the interior side of the lock provides instant verification that the door is secured. Egress is always free, even in lockdown mode.

### Featured products

- 1 Schlage CO-220 standalone classroom lockdown solution with remote fob
- 2 LCN 4030 closer (not shown)

### Ideal for

- K-12 schools
- Colleges and universities
- Early childhood centers
- Day care facilities



Standalone

## Common areas and storage rooms



The CO-100 standalone lock provides an easy and cost effective way to manage access to common areas, utility rooms or storage closets. Up to 500 unique 3-6 digit PIN codes can be added and deleted directly at the lock.

### Featured products

- 1 Schlage CO-100 standalone lock

### Ideal for

- Common areas
- Workout rooms
- Supply closets
- Maintenance closets

Standalone

## Standalone government and military



The AD-201 standalone FIPS 201-1 compliant lock provides a cost effective way to manage access to openings that do not require real-time monitoring and control.

### Featured products

- 1 Schlage AD-201 standalone FIPS 201-1 compliant lock

### Ideal for

- Military barracks
- Storage closets
- Utility rooms

## Standalone

# Standalone retail store front



The CT5000 is an offline single door controller that can be used to provide the convenience of access control to openings that do not require real-time monitoring. An audit trail can provide a record of who requested access. It can work with a variety of readers, as well as interface with peripheral devices such as automatic operators, electric strikes, and electromagnetic locks.

### Featured products

- 1 aptiQ™ SM10 reader
- 2 Schlage CT5000 single door offline controller (not shown)
- 3 Schlage 70 electromagnetic lock\*
- 4 Schlage Scan II motion sensor (not shown)
- 5 Schlage PS902-FA power supply (not shown)

### Ideal for

- Retail store fronts
- Small offices
- Small business

\* Where applicable by local code.

## Standalone

# Standalone secondary or employee entrances



The AD-200-993R standalone exit trim provides a cost-effective way to manage access to openings that do not require real-time monitoring and control. Can be used with offline access control software to set time zones, holiday schedules and to retrieve audits.

### Featured products

- 1 Schlage AD-200-993R standalone exit trim
- 2 aptiQ™ smart card
- 3 Von Duprin 99 x RX-LC rim exit device

### Ideal for

- Employee entrances
- Secondary entrances

For Customer Care and Technical Support,  
please call 877-671-7011 or visit [allegion.com/us](http://allegion.com/us)

## About Allegion

Allegion (NYSE: ALLE) helps keep people safe where they live, work and visit. Allegion is pioneering safety as a provider of security solutions for homes and businesses through 23 global brands. Allegion specializes in security around the doorway and beyond: everything from residential and commercial locks, door closers and exit devices, steel doors and frames, to access control and workforce productivity systems. Allegion is a \$2 billion business employing more than 7,600 people and offering products in more than 120 countries across the world.

Allegion's portfolio includes strategic brands CISA®, Interflex®, LCN®, Schlage® and Von Duprin®; and other brands including aptiQ®, Briton™, Bricard®, Dalco™, Dexter by Schlage®, Falcon®, Fusion Hardware Group™, Glynn-Johnson®, ITO Kilit™, Ives®, Kryptonite®, Legge®, Martin Roberts™, Normbau™, Randi™, Steelcraft®, XceedID®.

For more, visit [allegion.com](http://allegion.com)

*aptiQ* ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN