

# Electronic access control

Ives®, LCN®, Schlage®  
and Von Duprin®

September 2018 edition

Thank you for choosing Allegion electronic access control products. This catalog contains overviews and technical specifications. In the back of the catalog you will find wiring and riser diagrams for a number of products.

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#### Additional resources

##### Product Information and Learning

- [Allegion Website](http://www.allegion.com/us)
- [I Dig Hardware Blog](http://www.idighardware.com)
- [Online Courses](https://us.allegion.com/en/home/training.html)
- [Application and Installation Videos](https://us.allegion.com/en/home/training-videos.html.html#top)
- [YouTube Schlage Security Channel](#)
- Electronics Mobile App for Apple devices
- Electronics Mobile App for Android Devices
- [Electronic Lock Configurator](https://elock.allegion.com/Users/Login)

##### News

- [Twitter](https://www.twitter.com/allegionus)
- [Integration Insider Newsletter](https://us.allegion.com/en/home/trade/integrator.html)

##### Support

- [Online Schlage Electronics Support](https://us.allegion.com/en/home/support/library.html)
- [Technical library](https://us.allegion.com/en/home/support/library.html)

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# Electronic access control catalog

Open architecture products  
and solutions

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#### System component accessories



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Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

KRYPTONITE ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN



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## Products featuring ENGAGE™ technology

This section of the Electronic Access Control Catalog covers Schlage® Control™, NDE and LE wireless locks; CTE single door controller; ENGAGE™ web and mobile apps; Von Duprin® remote undocking (RU) and remote monitoring (RM) options for exit devices and the ENGAGE™ Gateway.

### Overview

Schlage® wireless electronic locks with ENGAGE™ technology open the door to a new level of intelligence with optimal visibility and control. Installation is simplified by combining the lock, reader, and access control sensors into one battery-powered unit; no need to run wires to the opening. Built-in Wi-Fi® and Bluetooth® radios enable the locks to connect directly to smart phones and tablets for easy set-up, to existing IT networks for automatic daily updates<sup>1</sup> and to the ENGAGE Gateway for real-time access control with one of our Software Alliance Members.

The CTE is an ENGAGE™ enabled single opening controller that allows perimeter and common area openings to be managed in a single system along with Schlage Control™ smart locks, NDE cylindrical and LE mortise wireless locks. It is ideal for multi-family, commercial mixed use, narrow stile and retail store front applications.

The Von Duprin® RU retrofit kit for exit devices is a cost effective solution for these secondary openings that enables remote undocking for centralized lock down and door status monitoring. It connects wirelessly to Software Alliance Members access control panel via an IP or RSI/ RS-485 connection to the ENGAGE™ gateway. It is a modular battery powered kit that can be added on to existing 98/99 and 33A/35A series devices. The RM option is a sensor only configuration for exit only or fire rate doors that require monitoring. It provides visibility to request to exit (RX), latchbolt monitor (LX) and door position switch (DPS).

<sup>1</sup> Wi-Fi not available on Schlage Control Smart locks

## Features:

Schlage Control™, LE and NDE wireless locks are designed to work together across commercial, institutional and multi-family properties and share the following features:

- Built on robust, reliable mechanical platforms
- Built-in credential reader and sensors for simplified installation
- Built-in Bluetooth® and Wi-Fi¹ connectivity
- Up to 2-year battery life with typical use

Schlage NDE wireless locks feature a refined design and standard 161L cylindrical door prep which enables quick and easy installation in minutes with only a Phillips screwdriver. NDE locks are compatible with most proximity or high-security smart credentials from Schlage.

Schlage LE wireless mortise locks feature an elegant design for doors with mortise prep; a wide variety of levers are available to complement any décor. Choose from two-piece sectional Greenwich or Addison escutcheon trim. There are three chassis options that all feature an interior LED indicator; standard mortise, mortise with interior push button, and mortise deadbolt. The LE can be configured for storeroom, privacy, office and apartment functions. LE locks are compatible with most proximity or high-security smart credentials from Schlage.

Schlage Control™ Smart Deadbolt and Smart Interconnected Locks are specifically designed for multifamily resident entries and are compatible with high-security smart credentials from Schlage. Choose Greenwich or Addison trim options to match the style of the building. Keyless, no cylinder design makes the lock pick proof.

The CTE single door controller is sold with a Schlage multi-technology credential reader (MT11-485 or MT15-485) and is designed to interface with an electrified lock, electromagnetic lock, electric strike, automatic operator or exit device to control an opening.

## Benefits:

We enable a new level of efficiency and convenience by adding built-in intelligence and communication technology to our world-class mechanical locks and exit device options. Solutions featuring Schlage Control™, LE and NDE wireless locks, the CTE single door controller and Von Duprin RU and RM option can be scaled to deliver enhanced value to virtually any property of facility.

### Manage with ENGAGE™ cloud-based web and mobile applications²

We offer an easy, turn-key solution featuring ENGAGE™ cloud-based web and mobile applications for customers who are looking to take the first step into electronic access control. With this solution, the end user has the capability to configure locks, manage users, enroll credentials, assign schedules, and view audits from anywhere using the web and mobile apps. Updates can be delivered immediately at the lock, automatically (overnight) when locks are connected to Wi-Fi¹ network, or with No-Tour using smart credentials to deliver updates to the lock.

### Manage with Software Alliance Member Solutions

Schlage Control™, NDE, LE wireless locks and Von Duprin RU and RM options are designed to complement traditional electronic access control (EAC) solutions to extend the benefits of EAC deeper into the facility. Our wireless devices have been integrated with industry leading EAC software providers to offer a wide range of features and advanced capabilities that vary by system. Flexible connectivity options include RS-485, IP, Wi-Fi¹, and No-Tour by using smart credentials to update the lock. The ENGAGE™ gateway can be used to connect Schlage wireless locks to the Software Alliance Member access control system for real-time updates via RS-485 or IP. Please visit [us.allegion.com/alliances](http://us.allegion.com/alliances) to learn more about our Software Alliances.

1 Wi-Fi available on NDE, LE and CTE only

2 Does not apply to Von Duprin RU and RM options

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# NDE

Wireless lock with  
ENGAGE™ technology



## Overview

The Schlage® NDE wireless cylindrical lock with ENGAGE™ technology is designed to affordably extend electronic access control deeper into the building beyond traditional perimeter and high security openings. Whether commercial real estate, K-12, higher education, assisted living, medical offices, or multi-family, nearly any facility can benefit from the enhanced security, efficiency, and convenience of upgrading to electronic credentials.

NDE wireless locks simplify installation by combining the lock, credential reader, door position sensor and request-to-exit switch all in one unit. NDE wireless locks utilize standard ND cylindrical door prep and can be installed in minutes with only a Phillips screwdriver; no need to install additional components, drill holes or run wires to each opening. NDE suites with all Schlage ND levers and keyways, as well as most finishes, providing attractive options to meet the requirements of nearly any facility. NDE is ideal for office and suite entries, conference rooms, common area doors, resident units, and sensitive storage areas with a cylindrical door prep.

Built-in Bluetooth® enables NDE wireless locks to connect directly to smart phones and tablets; no need for a proprietary handheld device for set-up and configuration. And with built-in Wi-Fi, NDE locks can connect directly to an existing Wi-Fi network enabling automated updates to lock configuration and user access. With the ENGAGE cloud-based web and mobile apps, it's easy to configure lock settings, add users, and view audits and alerts from virtually anywhere.

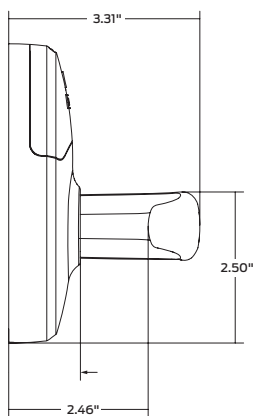
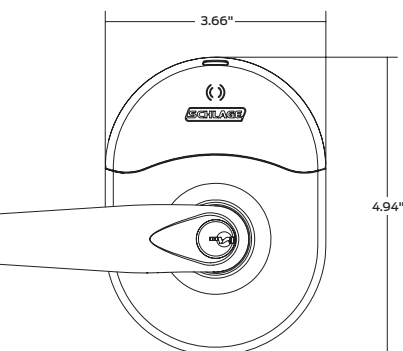
For advanced capabilities including networked real-time communication with the ENGAGE™ Gateway, NDE wireless locks can be managed with software from one of our Software Alliance Members. For additional details, please refer to the NDE Integrations found in the Alliances menu on our website at [us.allegion.com](http://us.allegion.com).

NDE wireless locks are compatible with most proximity and smart credentials.

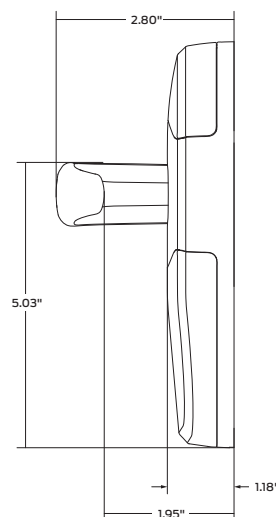
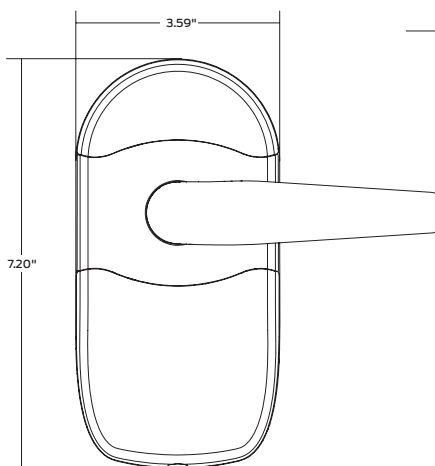
## Features and benefits

- Designed to be easy to install, connect, manage, and use
- Fits mechanical ND door prep with no additional holes
- Installs in minutes with only a Phillips screwdriver
- Weather resistant design for use on perimeter doors
- Lever handing is field reversible in seconds; no tools required
- Innovative integrated door position sensor requires no additional door prep
- Built-in Bluetooth® enables wireless configuration from smart phones and tablets
- Built-in Wi-Fi® enables automated daily updates sent directly from host software
- Networked real-time communication with the ENGAGE Gateway and a Software Alliance Member solution
- Up to 2 years of battery life
- Compatible with major brands of key systems
- ANSI/BHMA A156.25 (Indoor/Outdoor), ANSI/BHMA Grade 1, UL 294, UL10C, FCC Part 15, ADA, RoHS, Industry Canada (IC)

#### Exterior of the lock



#### Interior of the lock



## NDE wireless lock specifications

Users	Up to 5,000 <sup>1</sup>
Audits	Up to 2,000 <sup>2</sup>
Credential verification time	≤ 1 second <sup>3</sup>
Visual communications	LED (red, amber, green)
Audible communications	Audible indicator (field configurable)
Communication standards	<ul style="list-style-type: none"> <li>2.4 GHz Wi-Fi® (IEEE 802.11b/g)</li> <li>WPA2, WPA, WEP, 802.1x</li> <li>Bluetooth low energy (version 4.0)</li> <li>Transport Layer Security (TLS) version 1.0</li> <li>Advanced Encryption Standard (AES), 256-bit</li> </ul>
Gateway communication range	Up to 30' in typical building environments. A detailed site survey is recommended. Reference ENGAGE™ Gateway Data Sheet for additional detail.
Wake-Up on Radio	Responds to command from host in less than 5 seconds when linked to ENGAGE Gateway (requires Software Alliance Member system)
Data rate	24 Mbps via Wi-Fi
Connectivity options	<ul style="list-style-type: none"> <li>Mobile (send updates at the lock)</li> <li>Wi-Fi access point (automatic daily updates<sup>9</sup>)</li> <li>No-Tour with MT20W enrollment reader and smart credentials</li> <li>ENGAGE Gateway (real-time communication)</li> <li>RS-485 to ACP or IP to host</li> </ul>
Battery life	Up to 2 yrs with 4 AA batteries <sup>4</sup>
Operating temperature	Exterior: -31° to 151°F (-35° to 66°C) Interior: 32° to 120°F (0° to 49°C) (battery)
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25-2013 (Indoor/Outdoor), ANSI/BHMA A156.2-2011, Series 4000, Grade 1, UL 294, UL 10C, CSA C22.2 No. 205-M1983, FCC Part 15, IC RSS-210, ADA, RoHS, ICC ANSI A117.1

#### Functions

- Storeroom with Vandlgard®

#### Available status signals

- Request-to-exit
- Door position
- Interior cover tamper<sup>5</sup>
- Magnetic tamper
- Battery status
- Lock/unlock status<sup>6</sup>
- Communication status<sup>5</sup>

#### Flexible solutions

NDE wireless locks offer connectivity options to fit any size budget or business.

- 1 Mobile
- 2 No-Tour with MT20W
- 3 Wi-Fi
- 4 Real-time with ENGAGE Gateway

## ENGAGE™ cloud-based web and mobile applications



The ENGAGE cloud-based web and mobile applications deliver simple and convenient site set-up with basic access management for users and locks.<sup>1,3</sup> Please refer to the ENGAGE data sheet for additional detail.



<sup>1</sup> Maximum database storage capacity of lock. Can vary upon access control software database capacity when linked with an ENGAGE Gateway RS-485 to ACP.  
<sup>2</sup> Maximum audit storage capacity of lock. Can vary upon access control software audit storage capacity when linked with an ENGAGE Gateway RS-485 to ACP.  
<sup>3</sup> Response time does not include latency time of host when linked with an ENGAGE Gateway or when using No-Tour.

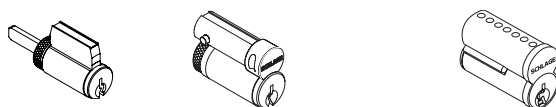
<sup>4</sup> Assuming indoor application, 13.56 MHz CSN credential, 100 actuations and one Wi-Fi update per day.  
<sup>5</sup> Consult your access control software provider for specific scope of support.  
<sup>6</sup> Software indicates lock/unlock status based on sequence of events.  
<sup>7</sup> When using the ENGAGE cloud-based access management software.



## Mechanical specifications

Chassis	Cylindrical
Handing	Right-handed from factory. Field reversible in seconds (no tools required)
ANSI standard (Meets or exceeds)	ANSI/BHMA A156.25-2013 (Indoor/Outdoor) ANSI/BHMA A156.2-2011, Series 4000, Grade 1
Door thickness	Standard: 1 3/8" - 2" (41mm - 51mm) only
Backset	Standard: 2 3/4" (70mm) Optional: 2 3/8" (60mm)
Latch bolt	Standard: 1/2" (12mm) throw deadlatch (steel) Optional: 3/4" (19mm) throw anti-friction deadlatch available for pairs of fire doors
Levers	Pressure cast zinc, plated
Strike	Standard: 1 3/16" lip, ANSI, DPS, 1 1/4" x 4" Optional: Additional strikes, lip lengths and ANSI strike box available
Cylinder and keys	Standard: Schlage 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys. Additional keying options available, including interchangeable cores, competitor brands, master keying and grand master keying

## Compatible cylinders



Schlage key systems	Conventional key-in-lever cylinder	Full size interchangeable core	Small format interchangeable core
With cylinder	PD, ZD	RD	GD
Construction Core	----	T	HD
Disposable Core	----	----	BDC
Less Cylinder	LD	JD	BD
Compatible cylinders listed above are supported on all levers.			
Sargent - Less Cylinder	LD SAR	JD SAR	----
Corbin - Less Cylinder	LD CO6	JD CO6, JD CO7	----
Yale - Less cylinder	----	JD YA6, JD YA7	----
Medeco - Less cylinder	----	JD MED	----

Six-pin competitive cylinders listed above are supported on ATH, SPA, RHO, and TLR levers. Seven-pin competitive cylinders listed above are supported on RHO levers.

## Multi-technology reader specification

Frequency	125 kHz proximity and 13.56 MHz smart credential
Standards	ISO standard 15693 and ISO 14443
Maximum read range	Up to 1.25" on 125 kHz proximity, up to 0.75" on 13.56 MHz smart credential
125 kHz proximity credential compatibility	<b>Compatibility:</b> Schlage®, XceedID®, HID®, GE/CASI ProxLite®, AWID® and LenelProx® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob and PVC adhesive disk
13.56 MHz smart credential compatibility <sup>2</sup>	<b>Secure sector compatibility:</b> Schlage and aptiQ™ MIFARE Classic®, XceedID, Schlage MIFARE Plus®, Schlage and aptiQ MIFARE® DESFire® EV1 with PACSA, Schlage and aptiQ mobile credentials. <b>CSN only compatibility:</b> DESFire, HID iClass®, Inside Contactless Pico Tag®, MIFARE, MIFARE DESFire EV1, ST Microelectronics®, Texas Instruments Tag-It®, Phillips I-Code® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob, wearable wristband, mobile and PVC adhesive patch

## Benefits of NDE multi-technology readers:

- Reads both proximity (125 kHz) and smart (13.56 MHz) technologies with single device
- NDE multi-technology readers are NFC compatible<sup>1</sup> and enable use with Schlage or aptiQ mobile credentials
- Allows end user to migrate to more secure credentials over time and as budgets permit

<sup>1</sup> Refer to the Schlage/aptiQ mobile credential compatibility chart for a list of certified devices

<sup>2</sup> No-Tour applications require a 1K Byte Schlage or aptiQ MIFARE smart credential

# Ordering information

NDE- 80 - PD -SPA-626

Series	Function	Lever cylinder	Outside		Inside		Backset and latch	Strike	Dim	Additional details
Lever style	Finish	Lever style	Finish	Backset and latch	Strike	Dim	Additional details			
1	2	3	4	5	6	7	8	9	10	11

Selections correspond with the numbers above

Standards options are indicated in bold. See price book for specific configuration options.

3	Lever cylinder type
PD	Schlage 6-pin Conventional cylinder

See price book for other SFIC, FSIC and Less Cores options available. Compatible with Schlage, Sargent, Corbin and Yale.

4/6	Lever style
ATH	Athens*
BRK	Boardwalk*
BRW	Broadway*
LAT	Latitude
LON	Longitude
OME	Omega
RHO	Rhodes*
SPA	Sparta*
TLR	Tubular*

\* Available with tactile surface

5/7	Finish
626	Satin chrome
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
622	Matte black
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial
8	Backset and latch
13-247	<b>2 3/4" backset, deadlatch, square corner, 1 1/8" x 2 1/4"</b>

See price book for additional backset and latch options

9	Strike
10-130	<b>1 3/16" lip, ANSI, DPS, no box, 1 1/4" x 4 7/8"</b>

See price book for other available strikes

10	Dim (strike lip length)
138	<b>1 3/8" non-standard lip length</b>

Enter only for non-standard strike lip lengths. See price book for other available non-standard lengths

11	Additional details
S123	<b>Everest 29</b>

See price book for other available keyway options including master keying

## Lever styles

Levers shown below are representative of the style for NDE, but not identical. The NDE shares the same levers as ND. All NDE locks feature mechanical key override; standard, SFIC or FSIC options available.



Athens



Boardwalk



Broadway



Latitude



Longitude



Omega



Rhodes



Sparta



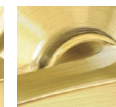
Tubular

## Finishes

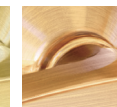
Warm tone finishes



605  
Bright brass



606  
Satin brass



612  
Satin bronze



643e  
Aged bronze



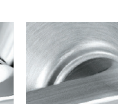
619  
Satin nickel



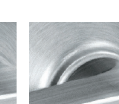
622  
Matte black



625  
Bright chrome



626  
Satin chrome



626AM  
Satin chrome with antimicrobial

619  
Satin nickel

622  
Matte black

625  
Bright chrome

626  
Satin chrome

626AM  
Satin chrome with antimicrobial

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## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

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# LE

## Wireless mortise lock with ENGAGE™ technology

### Overview

The Schlage® LE wireless mortise lock with ENGAGE™ technology is designed to affordably extend electronic access control deeper into the building beyond traditional perimeter and high security openings. The LE is ideal for commercial real estate, K-12, higher education, assisted living, medical offices, or multi-family applications. Facilities can benefit from the enhanced security, efficiency, and convenience of upgrading to electronic credentials.

LE wireless locks simplify installation by combining the lock, credential reader, door position sensor and request-to-exit switch all in one unit. LE wireless locks require only minor modifications to existing mechanical mortise prep with no wires to run to the lock or additional hardware necessary. LE suites with the most popular Schlage L Series decorative levers, keyways, and finishes, providing attractive options to meet the requirements of nearly any facility. LE is ideal for office and suite entries, conference rooms, common area doors, resident units, and sensitive storage areas with a mortise door prep.

Built-in Bluetooth® enables LE wireless locks to connect directly to smart phones and tablets; no need for a proprietary handheld device for set-up and configuration. And with built-in Wi-Fi®, LE locks can connect directly to an existing Wi-Fi network enabling automated updates to lock configuration and user access. With the ENGAGE cloud-based web and mobile apps, it's easy to configure lock settings, add users, and view audits and alerts from virtually anywhere.

For advanced capabilities including networked real-time communication with the ENGAGE™ Gateway, LE wireless locks can be managed with an integrated solution from one of our Software Alliance Members. For additional details, please refer to the LE Integrations found in the Alliances menu on our website at [www.us.allegion.com](http://www.us.allegion.com).

LE wireless locks are compatible with most proximity and smart credentials, including those from Schlage and aptiQ™.



### Features and benefits

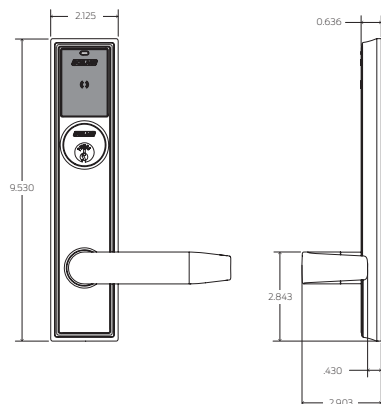
- Designed to be easy to install, connect, manage, and use for perimeter and interior door applications
- Suites with mechanical L Series with 31 levers and 2 knobs
- Weather-resistant design for use on perimeter doors
- MS mortise with indicator, MB mortise with push button, and MD mortise deadbolt available to configure applications for storeroom, privacy, apartment, and office
- Lever handing is field changeable on most styles. See price book.
- Innovative integrated door position switch requires no additional door prep<sup>1</sup>
- Built-in Bluetooth® enables wireless configuration from smart phones and tablets
- Built-in Wi-Fi® enables automated daily updates sent directly from host software
- Networked real-time communication with the ENGAGE Gateway and Software Alliance Member system
- Up to 2 years of battery life
- ANSI/BHMA A156.25 (indoor/outdoor), ANSI/BHMA Grade 1, UL 294, ULC S319, UL10C (3-hour fire rated), FCC Part 15, ADA, RoHS, FL3905, FL12400 and FL14482

<sup>1</sup> Door position switch requires additional prep for mortise deadbolt (MD) applications

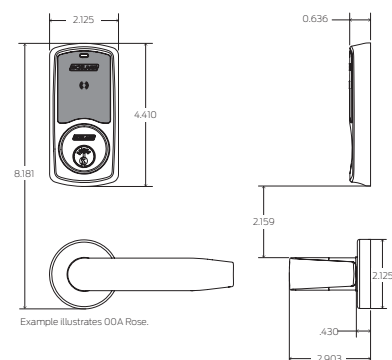


## Exterior of the lock

### Addison

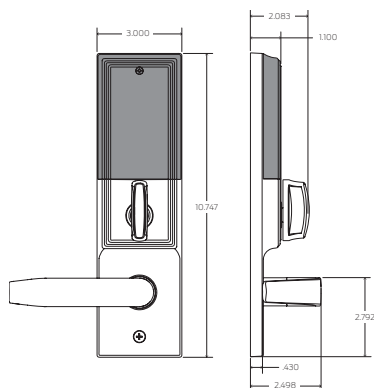


### Greenwich

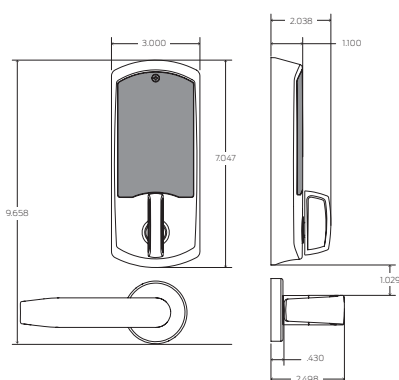


## Interior of the lock

### Addison



### Greenwich



## LE wireless lock specifications

Users	Up to 5,000 <sup>1</sup>
Audits	Up to 2,000 <sup>2</sup>
Credential verification time	≤ 1 second <sup>3</sup>
Visual communications	Exterior LED (red, amber, green); Interior LED (red, green)
Audible communications	Audible indicator (field configurable)
Communication standards	<ul style="list-style-type: none"> <li>2.4 GHz Wi-Fi® (IEEE 802.11b/g/n)</li> <li>WPA2, WPA, WEP, 802.1x</li> <li>Bluetooth low energy (version 4.2)</li> <li>Transport Layer Security (TLS) version 1.2</li> <li>Advanced Encryption Standard (AES), 256-bit</li> </ul>
Gateway communication range	Up to 30' in typical building environments. A detailed site survey is recommended. Reference ENGAGE™ Gateway Data Sheet for additional detail.
Wake-Up on Radio	Responds to command from host in less than 5 seconds when linked to ENGAGE Gateway (requires Software Alliance Member system)
Data rate:	54 Mbps via Wi-Fi
Connectivity options	<ul style="list-style-type: none"> <li>Mobile (send updates at the lock)</li> <li>Wi-Fi access point (automatic daily updates<sup>7</sup>)</li> <li>No-Tour with MT20W enrollment reader and smart credentials</li> <li>ENGAGE Gateway (real-time communication) <ul style="list-style-type: none"> <li>RS-485 to ACP or IP to host</li> </ul> </li> </ul>
Battery life	Up to 2 yrs with 4 AA batteries <sup>4</sup>
Operating temperature	Exterior: -31° to 151°F (-35° to 66°C) Interior: 32° to 120°F (0° to 49°C) (battery)
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25-2013 (Indoor/Outdoor), ANSI/BHMA A156.13-2012, Series 1000, Grade 1, UL 294, ULC S319, UL10C (3-hour fire rated), FCC Part 15, IC RSS-210, ADA, RoHS, ICC ANSI A117.1, FL3905, FL12400 and FL14482

## Chassis/functions

- MS mortise with indicator:
  - Storeroom
- MB mortise with push button:
  - Privacy
  - Office
  - Apartment
- MD mortise deadbolt:
  - Privacy
  - Apartment

## Available status signals

- Request-to-exit
- Door position
- Interior cover tamper<sup>5</sup>
- Battery status
- Lock/unlock status<sup>6</sup>
- Communication status<sup>5</sup>
- Deadbolt position status (MD only)<sup>5</sup>
- Interior pushbutton status (MB only)<sup>5</sup>

## Flexible solutions

LE wireless locks offer connectivity options to fit any size budget or business.

- 1 Mobile
- 2 Wi-Fi
- 3 Real-time with ENGAGE Gateway
- 4 No-Tour with MT20W

## ENGAGE™ cloud-based web and mobile applications



The ENGAGE cloud-based web and mobile applications deliver simple and convenient site set-up with basic access management for users and locks.<sup>1,3</sup> Please refer to the ENGAGE data sheet for additional detail.



<sup>1</sup> Maximum database storage capacity of lock. Can vary by access control software database capacity when linked with an ENGAGE Gateway RS-485 to ACP.

<sup>2</sup> Maximum audit storage capacity of lock. Can vary by access control software audit storage capacity when linked with an ENGAGE Gateway RS-485 to ACP.

<sup>3</sup> Response time does not include latency time of host when linked with an ENGAGE Gateway or when using No-Tour.

<sup>4</sup> Assuming indoor application, 13.56 MHz CSN credential, 80 actuations, interior LED disabled and one Wi-Fi update per day.

<sup>5</sup> Consult your access control software provider for specific scope of support.

<sup>6</sup> Software indicates lock/unlock status based on sequence of events.

<sup>7</sup> Daily update will occur within 24 hours as scheduled by the host.

## Mechanical specifications

Chassis	MS mortise with LED indicator; MB mortise with push button and LED; MD mortise with deadbolt and LED
Handing	Handed to order, field reversible
ANSI standard (Meets or exceeds)	ANSI/BHMA A156.25-2013 (Indoor/Outdoor) ANSI/BHMA A156.13-2012, Series 1000, Grade 1 With interchangeable core cylinders: Grade 2 Security
Door thickness	Standard: 1 3/4" (44 mm) Optional: 1 3/4" (44 mm) to 2 1/4" (57 mm) optional <sup>1</sup>
Backset	Standard: 2 3/4" (70mm)
Latch bolt	Standard: 3/4" (19 mm) throw stainless steel latch bolt with anti-friction tongue
Deadbolt	Standard: 1" (25 mm) throw stainless steel deadbolt
Levers	Forged brass or bronze
Strike	Standard: ANSI 1 1/4" x 4 7/8" (32 mm x 124 mm) x 1 3/16" (30 mm) curved lip strike with dust box Optional: Additional strike lip lengths and ANSI strike box available
Cylinder and keys	Standard: Patented Schlage 6-pin Everest 29 S123 keyway. Additional keying options available: Conventional and interchangeable cores, master keying, and grand master keying. Compatible with competitor cylinders and cams that support the L9000 Series.
Armored front	1 1/4" x 8" x 7/32" (32mm x 203 mm x 6 mm) only

Compatible cylinders	Mortise cylinder	Full size interchangeable core - FSIC	Small format interchangeable core - SFIC
With cylinder	P, Z	R	GD
Less cylinder	L	J*	BD*
Construction core	—	T	HD
Disposable core	—	—	BDC

\*Sold with cylinder housing - less core.

Note: Available in formats to support residential customers - 5-pin cylinder with C keyways. Need to specify keyway and pinning needs. Standard if not specified - P, 6-pin Everest 29 with S123 keyway.

## Multi-technology reader specification

Frequency	125 kHz proximity and 13.56 MHz smart credential
Standards	ISO standard 15693 and ISO 14443
Maximum read range	Up to 1.25" on 125 kHz proximity, up to 0.75" on 13.56 MHz smart credential
125 kHz proximity credential compatibility	<b>Compatibility:</b> Schlage®, XceedID®, HID®, GE/CASI ProxLite®, AWID® and LenelProx® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob and PVC adhesive disk
13.56 MHz smart credential compatibility <sup>3</sup>	<b>Secure sector compatibility:</b> Schlage and aptiQ™ MIFARE Classic®, XceedID, Schlage MIFARE Plus®, Schlage and aptiQ MIFARE® DESFire® EV1 with PACSA, Schlage and aptiQ mobile credentials <b>CSN only compatibility:</b> DESFire, HID iClass®, Inside Contactless Pico Tag®, MIFARE, MIFARE DESFire EV1, ST Microelectronics®, Texas Instruments Tag-It®, Phillips I-Code® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob, wearable wristband, mobile, PVC adhesive patch

## Benefits of LE multi-technology readers:

- Reads both proximity (125 kHz) and smart (13.56 MHz) technologies with single device
- LE multi-technology readers are NFC compatible<sup>2</sup> and enable use with Schlage or aptiQ mobile credentials
- Allows end user to migrate to more secure credentials over time and as budgets permit

<sup>1</sup> SFIC limited to 2" max

<sup>2</sup> Refer to Schlage/aptiQ mobile credential compatibility chart for a list of certified devices.

<sup>3</sup> No-Tour applications require a 1K Byte Schlage or aptiQ MIFARE smart credential

## Ordering information

LE - MS - GRW - P - 07 - 626 - 00A - 17 - 612 - 00A - LH - 10-136- 134 - S123

Series	Chassis/ function	Style	Cylinder type	Outside			Inside (optional)			Handing	Strike lip	Door thickness	Key system	Additional options
				Lever style	Finish	Rose (GRW only)	Lever style	Finish	Rose (GRW only)					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Selections correspond with the numbers above

Standards options are indicated in bold. See price book for specific configuration options.

### 1 Series / 2 Chassis/Function

LEMS	Mortise with indicator only
LEMB	Mortise with interior push button
LEMD	Mortise with deadbolt

See price book for descriptions of functions available.

### 3 Style

GRW	Greenwich (sectional)
ADD	Addison (escutcheon)

### 4 Cylinder type

P	Mortise cylinder, 5- or 6-pin
---	-------------------------------

See price book for other mortise cylinder, SFIC, FSIC and Less Cylinder options.

### 5/8 Lever style

Available in 31 levers and two knob styles including most M Series decorative lever options. Examples:

03	Suites with Tubular
06	Suites with Rhodes
07	Suites with Athens
17	Suites with Sparta
LAT	Latitude

### 6/9 Finish

626	Satin chrome
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
622	Matte Black
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial

### 7/10 Rose (GRW style only)

00A	2 1/8" (54 mm) diameter
00B	2 9/16" (65 mm) diameter
00C	2 5/8" (66 mm) diameter with bevel (not available in 612 finish)

MER and AVA decorative rose options are also available, but only with MER and ACC lever styles. Inside rose will default to outside unless specified.

### 11 Handing

RH	Right hand
LH	Left hand
RHR	Right hand reverse
LHR	Left hand reverse

Defaulted to Right Hand, if not specified. The chassis can be changed in the field, with some exceptions. See pricebook for additional details.

### 12 Strike plate/lip length

10-136	1 3/16" lip length (MS and MB)
10-072	1 3/16" lip length (MD)

Additional lip length options 7/8" to 1 3/4". See price book for details.

### 13 Door thickness

134	1 3/4" (44 mm)
-----	----------------

Optional: 1 3/4" (44 mm) to 2 1/4" (57 mm). 2" maximum door thickness on SFIC cylinders. See price book for additional details.

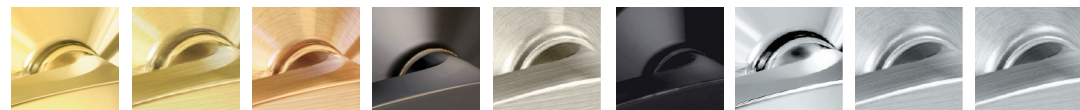
### 14 Keying type

S123	Everest 29
------	------------

See price book for other available keyway options including master keying.

### 15 Additional options

## Finishes



605	606	612	643e	619	622	625	626	626AM
Bright brass	Satin brass	Satin bronze	Aged bronze	Satin nickel	Matte Black	Bright chrome	Satin chrome	Satin chrome with antimicrobial

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## About Allegion

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## Schlage Control™ Smart Deadbolts

**BE467F, Grade 2**

Schlage Control™ Smart Deadbolts mark a new era of electronic access control in the multifamily world. By ushering in the next generation of highly scalable, efficiency boosting capabilities, multifamily properties can focus on operating more profitably—and with greater appeal for residents.

Using ENGAGE™ cloud-based mobile or web apps, facility staff can configure and manage access from virtually anywhere. The open integration capabilities, offer flexible, streamlined control and the freedom to integrate with our Software Alliance Members to manage a wide spectrum of facility needs. Residents will enjoy the convenience of using a smartphone and/or smart credentials to open doors.

Schlage Control™ Smart Deadbolts are part of an extensive Allegion™ lineup, which holds a solution for every door a multifamily property needs to manage.

### Benefits

- Improves security and safety, reduces liability
  - No-cylinder design makes locks 100% pick proof
  - Designed for accessibility using smart credentials and/or smartphone (by using Software Alliance Member mobile application)
- Increases efficiency of property operations
  - Eliminates cost and hassle of managing of keys
  - No-tour functionality (altering access to a lock without having to visit it)
- Maximize return on investment
  - Smart credentials eliminate lock rekeying costs
  - Upgrades property visual appeal



Schlage Control™ Smart Deadbolt  
with Addison trim in Aged Bronze



Schlage Control™ Smart Deadbolt  
with Greenwich trim in Satin Nickel

## Features

- Keyless, no cylinder design — 100% pick-proof
- Modern credentials — smart credential and/or smartphone as key using Software Alliance Member mobile application
- Lock programming via mobile application on phone and/or tablet (Bluetooth® connection)
- Supports both on-line (Gateway Required) and off-line applications
- Up to 500 users per lock
- Audit trail reports up to 1,000 events
- Fits standard door prep
- 1½-year battery life (off-line mode)
- Full suiting with Schlage decorative mechanical locks
- ADA compliant design

## Markets

- Multifamily communities
- Senior living communities
- Student housing
- Military housing

## Specifications

- **Latch:** 1"x 2¼" square and round corner faceplate (round corner standard, square corner included in package) 1" edge bore required
- **Strikes:** 1⅛" x 2¾", round corner, no box, latch strike
- **Backset:** Adjustable backset, fits 2⅜" to 2¾" backsets
- **Door Range:** 1⅜" to 1¾" (thick door kit available - up 2¼")
- **Hole Distance:** Minimum 4" center-to-center distance between cross bore holes
- **Battery:** 4-AA batteries included, (If loss of battery power occurs, a 9V battery can be used to jump start the lock and provide access with an assigned credential.)
- **Construction:** All-metal chassis and escutcheons
- **Bore:** 2⅞"
- **Credential:** Supports smart and multi-technology Schlage or aptiQ MIFARE Classic®, MIFARE Plus® or MIFARE® DESFire® EV1¹
- **Stile width:** Minimum 4½" stile for 2⅜" backset, minimum 5" stile for 2¾"
- **Certifications:** 90 minute UL Listed A 156.12 Grade 2 ANSI/BHMA certified; Canada UL 20-minute wood door rated
- **Operating Temperature Exterior Side:** -35C to 66C
- **Operating Temperature Interior Side:** -10C to 50C

¹ No-Tour applications require a 1K Byte Schlage or aptiQ MIFARE smart credential

² Passage levers are sold separately.

## Style Options

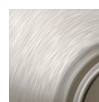


BE467F  
Schlage Control™  
Smart Deadbolt with  
Addison trim  
in Aged Bronze



BE467F  
Schlage Control™  
Smart Deadbolt with  
Greenwich trim  
in Satin Nickel

## Finish Options



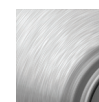
619  
Satin  
Nickel



622  
Matte  
Black



625  
Bright  
Chrome



626  
Satin  
Chrome



716  
Aged  
Bronze

## Matching Lever Designs (Ordered separately)

Suites with other Schlage locks with 15 available lever designs



BE467F  
Schlage Control™  
Smart Deadbolt Lock  
with Addison trim  
in Aged Bronze  
with Accent lever²



BE467F  
Schlage Control™  
Smart Deadbolt Lock  
with Greenwich trim  
in Satin Nickel  
with Broadway Lever²

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## Schlage Control™ Smart Interconnected Locks

FE410F, Grade 2

Schlage Control™ Smart Interconnected Locks mark a new era of electronic access control in the multifamily world. By ushering in the next generation of highly scalable, efficiency-boosting capabilities, multifamily properties can focus on operating more profitably—and with greater appeal for residents.

Using cloud-based mobile or web apps, facility staff can configure and manage access from virtually anywhere. Open integration capabilities provide flexible, streamlined control and the freedom to integrate with our Software Alliance Members to manage a wide spectrum of facility needs. Residents will enjoy the convenience of using a smartphone and/or smart credentials to open doors.

Schlage Control™ Smart Interconnected Locks are part of an extensive Allegion™ lineup, which holds a solution for every door a multifamily property needs to manage.

### Benefits

- Improves security and safety, reduces liability
  - No-cylinder design makes locks 100% pick proof
  - Designed for accessibility using smart credentials and/or smartphone (by using Software Alliance Member mobile application)
- Increases efficiency of property operations
  - Eliminates cost and hassle of managing of keys
  - No-Tour functionality (altering access to a lock without having to visit it)
- Maximize return on investment
  - Smart credentials eliminate lock rekeying costs
  - Upgrades property visual appeal



Schlage Control™ Smart Interconnect Lock  
with Addison trim in Aged Bronze with Accent lever



Schlage Control™ Smart Interconnect Lock  
with Greenwich trim in Satin Nickel with Broadway Lever

## Features

- Keyless, no cylinder design—100% pick-proof
- Modern credentials—smart credential and/or smartphone as key using Software Alliance Member mobile application
- Lock programming via mobile application on phone and/or tablet (Bluetooth® connection)
- Supports both on-line (Gateway Required) and off-line applications
- Up to 500 users per lock
- Audit trail reports up to 1,000 events
- Fits standard door prep
- 1½-year battery life (off-line mode)
- Full suiting with Schlage mechanical locks
- Single motion egress
- ADA compliant design

## Markets

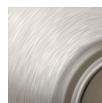
- Multifamily communities
- Senior living communities
- Student housing
- Military housing

## Specifications

- **Latch:** 1" x 2¼" square and round corner faceplate (square corner standard, round corner included in package) 1" edge bore required
- **Strikes:** 1⅛" x 2¾", square corner, no box, latch strike
- **Backset:** Adjustable backset, fits 2⅜" to 2¾" backsets
- **Door Range:** 1⅜" to 1¾" (thick door kit available - up 2")
- **Battery:** 4-AA batteries included, (If loss of battery power occurs, a 9V battery can be used to jump start the lock and provide access with an assigned credential.)
- **Construction:** All-metal chassis and escutcheons
- **Bore:** 2⅝"
- **Credential:** Supports smart and multi-technology Schlage and aptiQ MIFARE Classic®, MIFARE Plus® or MIFARE® DESFIRE® EV1¹
- **Stile width:** Minimum 4½" stile for 2⅜" backset, minimum 5" stile for 2¾"
- **Return to Door:** Boardwalk (BRK), Longitude (LON), Saturn (SAT) and Neptune (NEP) are return to door code compliant
- **Center to Center:** Fits 4" or 5½" center to center door preps -orderable options (Must specify when ordering)
- **Certifications:** 90-minute UL Listed A 156.12 Grade 2 ANSI/BHMA certified; Canada UL 20-minute wood door rated
- **Operating Temperature Exterior Side:** -35C to 66C
- **Operating Temperature Interior Side:** -10C to 50C

¹ No-Tour applications require a 1K Byte Schlage or aptiQ MIFARE smart credential

## Finish Options



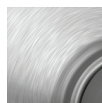
619  
Satin  
Nickel



622  
Matte  
Black



625  
Bright  
Chrome



626  
Satin  
Chrome



716  
Aged  
Bronze

\*Reference current pricebook to confirm finishes available by lever style.

## Addison Lever Options



Accent



Avila



Birmingham



Boardwalk



Broadway



Elan



Jazz



Jupiter



Latitude



Longitude



Manhattan



Neptune



Northbrook



Sacramento



Saturn

## Greenwich Lever Options



Accent



Avila



Birmingham



Boardwalk



Broadway



Elan



Jazz



Jupiter



Latitude



Longitude



Manhattan



Neptune



Northbrook



Sacramento



Saturn

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# CTE

ENGAGE™ single door controller  
with multi-technology reader



## Overview

The CTE is an ENGAGE™ enabled single opening controller that allows perimeter and common area openings to be managed in a single system along with Schlage Control™ smart deadbolts, NDE cylindrical and LE mortise wireless locks. It is ideal for multi-family, commercial mixed use, and retail store front applications.

The CTE is designed to work with a Schlage® multi-technology credential reader and interface with an electrified lock, electromagnetic lock, electric strike, automatic operator, or exit device to control an opening.

The CTE single door controller is designed for flexibility and can be managed with ENGAGE™ web and mobile apps or with one of our Software Alliance Member systems.

## Features and benefits

- Enables around the door solution with ENGAGE functionality
- Built-in BLE and Wi-Fi
- Complete with Schlage MT11-485 or MT15-485 reader (required)
- No-Tour capable
- Flexible connectivity options: manage with ENGAGE web and mobile apps or with one of our Software Alliance Members
- Inputs: door position (DPS), request to exit (REX), request to enter (REN), remote release (REL)
- Outputs: lock relay , alarm relay, auxiliary (AUX) relay
- Input Power: 12 or 24 VDC or Power over Ethernet (PoE)
- Provides DC output power and dry control contacts

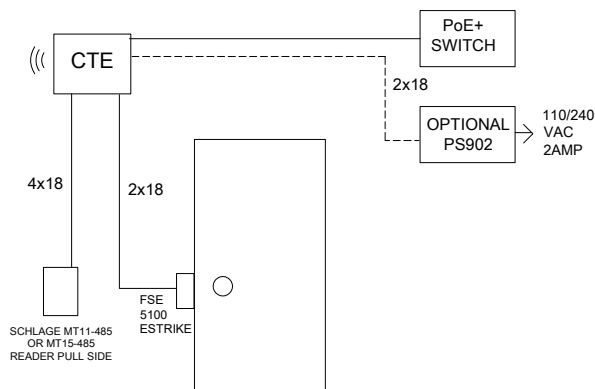
## CTE single door controller specifications

Users	Up to 5,000
Audits	Up to 2,000
Schedules	Up to 16
Holidays	Up to 32
Time zones	Up to 16
Communication Standards	Bluetooth low energy (version 4.2)
	2.4 GHz Wi-Fi® (IEEE 802.11b/g/n)
	WPA2, WPA, WEP, 802.1x (PEAP)
	Transport Layer Security (TLS) version 1.2
	Advanced Encryption Standard (AES), 256-bit
Gateway communication range	Up to 30' in typical building environments. A detailed site survey is recommended. Reference ENGAGE™ Gateway Data Sheet for additional details.
Connectivity options	Mobile (send updates at door)
	Wi-Fi access point (automatic daily updates)
	ENGAGE Gateway, IP to host (Networked wireless reader interface)
	No-Tour, requires MT20W enrollment reader and smart Credentials
Power Inputs	12 or 24 VDC at 3 Amps input for powered outputs to get max 2 Amp output on relays, 0.5 Amp minimum input when using dry contacts.
	PoE/PoE+ (IEEE 802.3af/at)
Powered Outputs: Locking Mechanism, Alarm, Auxiliary	12 VDC in: 2A @ 12 VDC -- Max Combined output across powered outputs
	24 VDC in: Max 2A @ 24 VDC -- Max Combined output across powered outputs
	PoE in: Max 0.5A @ 12 VDC -- Max Combined output across powered outputs
	PoE+ in: Max 1.5A @ 12 VDC -- Max Combined output across powered outputs
Powered Outputs: Reader	0.3A @ 12 VDC (up to 500 ft.)
	External power source 12/24VDC -- (Output to reader is always 12VDC)
Outputs (Dry): Locking mechanism, Aux, Alarm	Locking mechanism: 2A @ 30VDC max
	AUX: 2A @ 30VDC max
	Alarm: 2A @ 30VDC max
Signal Inputs	Reader (Schlage MTxx-485)
	Request-to-enter (REN)
	Request-to-exit (REX)
	Remote Release (REL) -- wired
	Door position switch (DPS)
Operating temperature (indoor)	-31°F (-35°C) to 151°F (66°C)
Operating humidity	0 - 100% non-condensing
Certifications	UL 294 Indoor, FCC Part 15, NEMA Enclosure Indoor (Type 1, 4, and 4X), ULC S319 Indoor, RoHS
Dimensions	2.96" x 5.89" x 7.86"
Reader Requirement	Schlage MT11-485 or MT15-485 Reader

# The CTE single door controller with multi-technology reader kit can be used in a variety of applications; below are a few examples.

Please note; all components are sold separately.

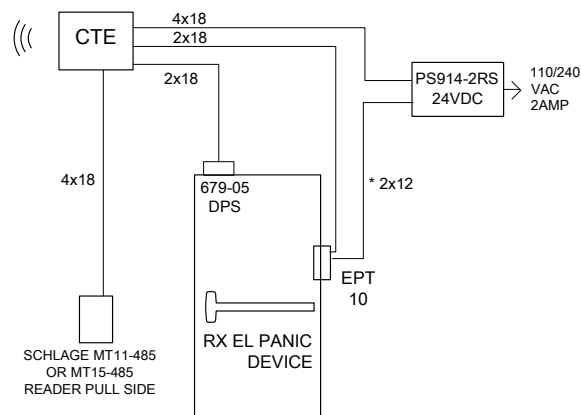
ENGAGE™ cloud via mobile device or Wi-Fi, or Software Alliance Member (SAM) via Wi-Fi or GWE with IP to host



**Operation:** Presenting a valid credential to Schlage MT XX-485 reader will cause fail secure 5100 electric strike to release for authorized entrance. Free egress always.

**Products:** We offer a variety of electric strikes from Locknetics™ and Von Duprin®, as well as Schlage Power Supplies to meet the specific needs of the opening.

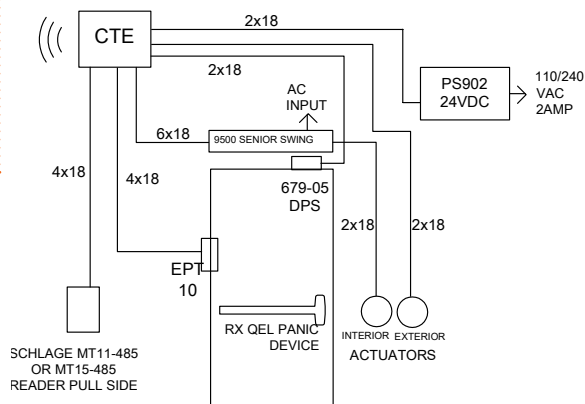
ENGAGE™ cloud via mobile device or Wi-Fi, or Software Alliance Member (SAM) via Wi-Fi or GWE with IP to host



**Operation:** Presenting a valid credential to Schlage MT XX-485 will cause EL panic device to retract for authorized entrance. Free non-alarmed egress at all times.

**Products:** We offer a variety of Falcon® and Von Duprin exit devices, and Von Duprin power supplies to meet the specific needs of the opening.

ENGAGE™ cloud via mobile device or Wi-Fi, or Software Alliance Member (SAM) via Wi-Fi or GWE with IP to host



**Operation:** Presenting a valid credential to Schlage MT XX-485 will cause QEL panic device to retract for authorized entrance and enable exterior actuator. Free non-alarmed egress at all times. Interior actuator always active to retract QEL panic and open door.

**Products:** We offer a variety of hardware and accessories from Von Duprin, LCN®, Schlage and Locknetics to meet the specific needs of the opening.



## Reader requirement



MT11-485

MT15-485

The CTE single door controller kit is available with two reader options:

- **CTE-MT11-485:** CTE with multi-technology mullion reader kit
- **CTE-MT15-485:** CTE with multi-technology single gang reader kit

### Notes:

- Reader color (black, grey, brown, or cream) can be specified; black is the default
- Custom reader configuration can be specified

## Credential compatibility

### Multi-technology reader specification

125 kHz proximity  
credential compatibility

**Compatibility:** Schlage®, XceedID®, HID®, GE/CASI ProxLite®, AWID® and LenelProx®  
**Schlage credential style formats:** Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob and PVC adhesive disk

13.56 MHz smart  
credential compatibility<sup>1</sup>

**Secure sector compatibility:** Schlage and aptiQ™ MIFARE Classic®, XceedID, Schlage MIFARE Plus®, Schlage and aptiQ MIFARE® DESFire® EV1 with PACSA, Schlage and aptiQ mobile credentials  
**CSN only compatibility<sup>2</sup>:** DESFire, HID iClass®, Inside Contactless Pico Tag®, MIFARE, MIFARE DESFire EV1, ST Microelectronics®, Texas Instruments Tag-It®, Phillips I-Code®  
**Schlage credential style formats:** Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob, wearable wristband, mobile, PVC adhesive patch

<sup>1</sup> No-Tour applications require 13.56 MHz smart credentials from Schlage or aptiQ. Minimum memory size of 8k bit/1K byte required.

<sup>2</sup> Configuration card required to enable CSN.

The CTE can operate in the same system as Schlage Control™ smart locks, NDE and LE wireless locks.

Manage with ENGAGE™ cloud based web and mobile apps or with one of our Software Alliance Members.

To learn more visit [allegionengage.com](http://allegionengage.com).

### ENGAGE™ cloud-based web and mobile applications



The ENGAGE cloud-based web and mobile applications deliver simple and convenient site set-up with basic access management for users and locks. Please refer to the ENGAGE data sheet for additional detail.



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# ENGAGE™

Cloud-based web  
and mobile applications



## Overview

ENGAGE™ technology cloud-based web and mobile applications simplify the ability to connect people, openings and access management to deliver cost effective intelligence and efficiency to any facility.

With the ENGAGE cloud-based web and mobile apps, it's easy to configure settings, manage users, assign access privileges, and view audits and alerts from anywhere. Updates to configuration and access privileges can be sent at the device with the ENGAGE mobile app. Or, to send updates without visiting the lock, leverage the existing Wi-Fi network (Schlage NDE, LE and CTE) or built-in No-Tour capability (Schlage NDE, LE, Schlage Control® and CTE).

The ENGAGE web and mobile apps have been updated to allow enhanced capabilities including audit filtering, lock schedules, user schedules, and holidays. Please see page four for a complete listing of capabilities.

## System capabilities Summary

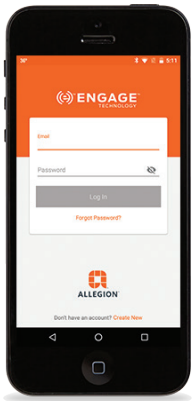
- ENGAGE™ web app
  - Convenient web based application—managed from anywhere
  - Configure lock/device settings
  - Add new users and enroll credentials
  - Assign credential type including master, normal, toggle, freeze, pass through, blocked, and lockdown
  - Manage users and assign access privileges
  - Create and assign lock/device schedules, user schedules and holidays
  - View and export audits
  - Schedule lock/device firmware updates<sup>1</sup>
- ENGAGE™ mobile app
  - Add new locks or devices
  - Configure lock and device settings
  - Add new users and enroll credentials
  - Assign credential type including master, normal, toggle, freeze, pass through, blocked, and lockdown
  - Manage users and assign access privileges
  - Assign lock/device schedules, user schedules and holidays
  - View audits
  - Send updates wirelessly at the lock or device

<sup>1</sup> Applies to NDE, LE and CTE with built-in Wi-Fi

# ENGAGE™ cloud-based web and mobile applications

The ENGAGE™ cloud-based web and mobile applications deliver simple and convenient site set-up as well as the ability to manage users, assign access privileges and view audits and alerts from anywhere.

## Technology recommendations



### Apple iOS

- iOS 10 or newer
- iPhone 6 or newer
- iPad Air or iPad Air 2
- iPad Pro
- iPad Mini 2 or newer

### Android

- Lollipop (5.0) or newer
- For optimum performance a flagship device from a major manufacturer is recommended
  - Google Nexus 5X, Pixel or newer
  - LG G6 or newer
  - Moto Droid
  - Samsung Galaxy Tab 2 or newer
  - Samsung S6 or newer



## Electronic credentials

Eliminate the time and costs associated with managing keys or re-keying locks by upgrading to electronic credentials. Provide a unique credential to authorized users that can be:

- Tracked for usage
- Added and revoked remotely
- Assigned to be valid during specific days and times
- Deleted and replaced if lost or stolen – without having to re-key the lock



Options include cards, fobs, and wearable wristbands

### Proximity credentials (125 kHz):

- AVID®
- GE/CAS1®
- HID®
- Schlage®
- XceedID®

### Smart credentials (13.56 MHz):

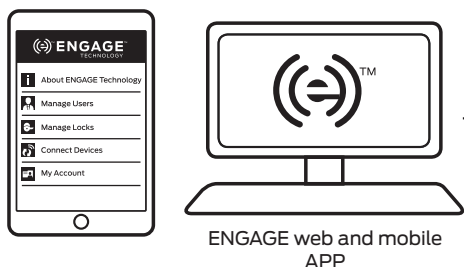
- Schlage or aptiQ® MIFARE Classic®
- Schlage MIFARE Plus®
- Schlage or aptiQ MIFARE® DESFire® EV1

### NFC:

- Schlage and aptiQ mobile

### Smart credentials (13.56 MHz) - reads card serial number only:

- HID iCLASS®
- DESFire®
- MIFARE®
- MIFARE DESFire™ EV1



## Manage access

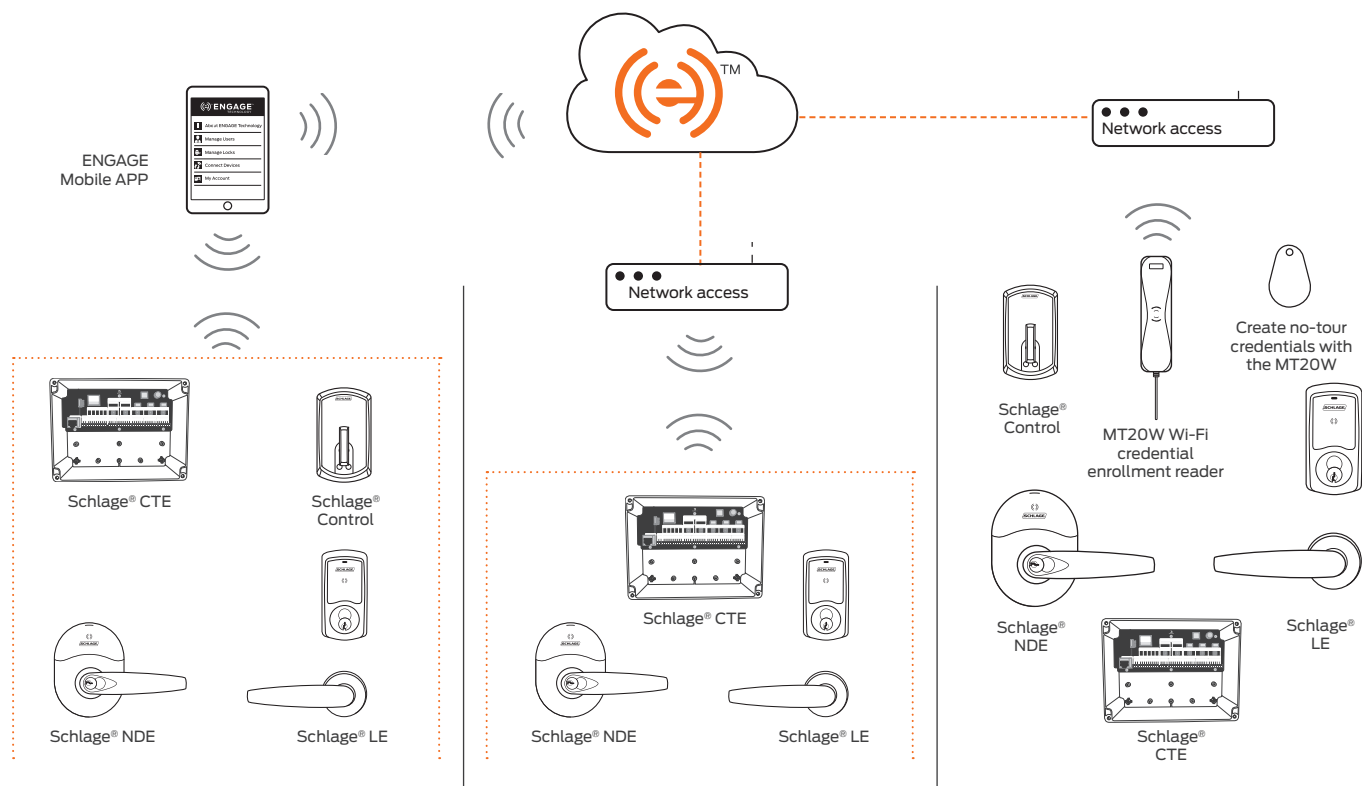
Manage your site from anywhere with ENGAGE cloud-based web and mobile applications.

- Configure lock/device settings
- Add new users and enroll credentials
- Manage users and assign access privileges
- New! Set lock/device schedules, holidays, user schedules
- View and export audits and alerts
- Invite others to assist with administration

## Update locks and devices

Send updates wirelessly at the lock with the ENGAGE mobile application on a Bluetooth® enabled smart phone or tablet. Or leverage the existing Wi-Fi network or built-in No-tour capability to send updates without visiting the lock or device.

- Update access rights
- Update lock/device settings
- Update firmware
- Perform diagnostics



### Immediate Updates

Send updates at the lock/device, anytime, with the ENGAGE mobile app. Available on Schlage Control smart locks, NDE and LE wireless locks, and CTE.

### Automatic Daily Updates

Connect /devices to the Wi-Fi network for automatic daily updates. Available on Schlage NDE and LE wireless locks, and CTE.

### No-Tour via Smart Credentials

Eliminate the need to visit the locks/devices by using smart credentials to deliver updates to access rights. Available on Schlage Control smart locks, NDE and LE wireless locks, and CTE.

## System capabilities:

Wireless offline security solution with ENGAGE technology				
	Schlage NDE Cylindrical	Schlage LE Mortise	Schlage Control Smart Deadbolt / Interconnect	CTE single door controller
System Features				
Maximum number of locks/devices		NDE, LE and CTE = Up to 100 Control = Up to 500		
Maximum number of users		Up to 5,000 <sup>1</sup>		
Maximum number of audits		Up to 100,000 <sup>2</sup>		
Maximum number of lock/device schedules		Up to 16 <sup>3</sup>		
Maximum number of holidays		Up to 32 <sup>3</sup>		
Maximum number of user schedules		Up to 16		
Update capability				
Bluetooth® <sup>4</sup>	Yes	Yes	Yes	Yes
Wi-Fi <sup>5</sup>	Yes	Yes	No	Yes
No-Tour <sup>6</sup>	Yes	Yes	Yes	Yes
Lock functions				
Storeroom	Yes	Yes	n/a	n/a
Office	No	Yes	n/a	n/a
Privacy	No	Yes	n/a	n/a
Apartment	No	Yes	Yes	n/a
Status monitors				
Interior cover tamper	Yes	Yes	Yes	Yes <sup>8</sup>
Request to exit	Yes	Yes	n/a	Yes
Deadbolt position status	n/a	Yes	No	n/a
Interior pushbutton status	n/a	Yes	n/a	n/a
Forced door	Yes	Yes	n/a	Yes
Propped door	Yes	Yes	n/a	Yes
Magnetic tamper	Yes	Yes	n/a	n/a
Battery status (normal, low, critical)	Yes	Yes	Yes	n/a
Battery voltage level	Yes	Yes	Yes	n/a
Credentials				
13.56 MHz Smart <sup>7</sup>	Yes	Yes	Yes	Yes
125 kHz Prox	Yes	Yes	No	Yes
Credential attributes				
Normal credential	Yes	Yes	Yes	Yes
Toggle credential	Yes	Yes	n/a	Yes
Pass through credential	Yes	Yes	Yes	Yes
Visitor/one-time use credential	Yes	Yes	n/a	Yes
Freeze credential	Yes	Yes	Yes	Yes
Block credential	Yes	Yes	Yes	Yes

<sup>1</sup> Maximum number of users for a site. NDE and LE wireless locks and CTE are capable of storing up to 5,000 users. Control is capable of storing up to 500 users.

<sup>2</sup> Audit capacity per lock for a site. NDE and LE wireless locks and CTE are capable of storing up to 2,000 audits. Control is capable of storing up to 1,000 audits.

<sup>3</sup> Applies to NDE and LE wireless locks and CTE only.

<sup>4</sup> Requires ENGAGE mobile application

<sup>5</sup> Requires available Wi-Fi network with internet connection. Update will occur within 24 hours as scheduled by ENGAGE host software

<sup>6</sup> Requires MT20W credential enrollment reader

<sup>7</sup> No-tour functionality requires minimum 1K byte/8k bit Allegion smart credential and MT20W enrollment reader

<sup>8</sup> Ability to monitor tamper on reader cover

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## MT20W

Credential enrollment  
reader with ENGAGE™  
technology

### Overview

The Schlage® MT20W multi-technology enrollment reader is designed to simplify the enrollment of smart and multi-technology credentials. The MT20W is powered by a USB cable (via a computer's USB port or a powered USB plug) and utilizes a Wi-Fi connection for enrolling no-tour credentials.

The MT20W is compatible with Schlage smart credentials (MIFARE Classic®, MIFARE Plus® and MIFARE® DESFire® EV1) and supports no-tour access control when used with supported locks. Access rights can be assigned to a user/resident without property staff having to visit (tour) the lock. User/resident access to the lock is updated the next time the new credential is presented to the supported lock.



### Features and benefits

- Use your computer and the ENGAGE web app to easily enroll credentials
- Recognizes Schlage smart and multi-technology credentials (MIFARE Classic, MIFARE Plus and MIFARE DESFire EV1)
- Simplifies credential enrollment
- Uses Wi-Fi connection for credential enrollment
- Limited Lifetime Warranty



Model	MT20W
Reader type	Wi-Fi
Software and operating system requirements	Wi-Fi
Bit formats recognized	26A, 32X, 34N, 34S, 35C, 37X, 37H, 40X
Technologies supported	Schlage MIFARE Classic Secure Sector aptiQ®/XceedID® MIFARE Classic Secure Sector Schlage MIFARE Plus Secure Sector Schlage MIFARE DESFire EV1 with PACSA Secure Sector aptiQ MIFARE DESFire EV1 with PACSA Secure Sector
Physical dimensions (l x w x h)	5.56 " x 2.00 " x .695 "
Operating temperatures	0 to 40 C
Weight	4.1 oz
Power supply	Connect to powered USB port or via USB power supply
Interface	USB
Current requirement	160 mA

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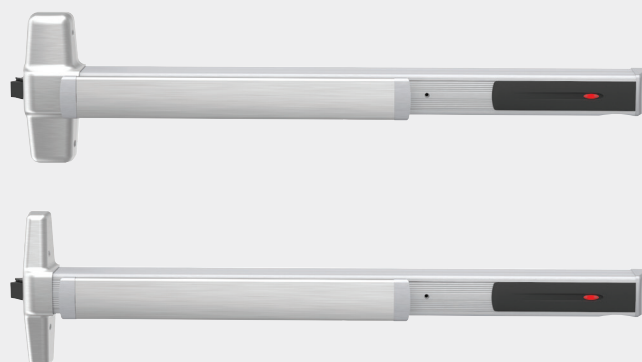


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**VON DUPRIN®**

# Remote undocking and monitoring

RU and RM options



## Overview

In many institutional facilities, traffic is funneled through main perimeter openings equipped with access control. The remaining secondary perimeter openings utilize mechanical hardware, some of which is mechanically dogged (unlocked) and undogged (locked) to enable push/pull operation. The manual management and monitoring of these openings is inefficient and prone to human error.

The Von Duprin® RU retrofit kit for exit devices is a cost effective solution for these secondary openings that enables remote undocking for centralized lock down and door status monitoring. It connects wirelessly to our access control Software Alliance Members via an IP or RSI/RS-485 connection to the ENGAGE™ gateway. It is a modular battery powered kit that can be added on to existing 98/99 and 33A/35A series devices. The RM option is a sensor only configuration for exit only or fire rate doors that require monitoring. It provides visibility to request to exit (RX), latchbolt monitor (LX) and door position switch (DPS).

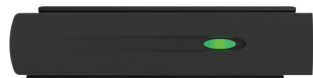
This complimentary solution enhances security by expanding the reach of the access control system to secondary openings that traditionally would go unaddressed because of the cost and complexity of running wires. Bringing these secondary openings online provides a more comprehensive perimeter security package.

## Features and benefits

- Access control managed via an IP or RSI/RS-485 connection to the ENGAGE gateway through Software Alliance Members
- Modular kit compatible with 98/99 and 33A/35A series devices
- Enables undocking for centralized lockdown
- Cylinder and hex mechanical dogging is maintained but can be overridden electronically
- Enables comprehensive view of door status via request to exit (RX), latchbolt monitor (LX) and door position switch (DPS)
- Sensor only configuration version (RM) available for exit only doors or fire rated doors
- Battery life up to 2 years with 4 standard AA batteries<sup>1</sup>
- Electronics Certifications: UL294 indoor, FCC Part 15 - Commercial

<sup>1</sup> Assuming dog and undog sequence use rate is 2 cycles per day, exception notification rate is one occurrence every 2 days, and door use of at least 200 cycles per day (sensor and wireless activity indication).

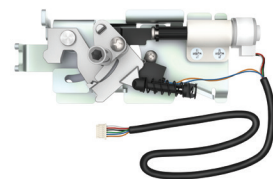
## Main components of RU kit:



Cover



Battery housing/batteries/main PCB



Undog assembly



LX/DPS and RX switch assembly

## Wireless specifications

Audits	Up to 2,000 <sup>1</sup>
Visual communications	LED (red, amber, green)
Audible communications	Audible indicator (field configurable)
Communication standards	<ul style="list-style-type: none"> <li>Bluetooth low energy (version 4.2)</li> <li>Advanced Encryption Standard (AES), 256-bit</li> <li>2.4 GHz Wi-Fi® (IEEE 802.11b/g/n)<sup>2</sup></li> <li>WPA2, WPA, WEP, 802.1x</li> <li>Transport Layer Security (TLS) version 1.2</li> </ul>
Communication range	Up to 30 ft.
Wake-Up on Radio	Responds to command from host in less than 5 seconds when linked to ENGAGE Gateway (requires Software Alliance Member system)
Connectivity options	<ul style="list-style-type: none"> <li>IP or RSI/ RS-485 connection to the ENGAGE™ gateway</li> <li>BLE to mobile devices</li> <li>BLE to Engage Gateway</li> <li>Wi-Fi<sup>3</sup></li> </ul>
Battery life	Up to 2 years with 4 AA batteries <sup>4</sup>
Operating temperature	-4° to 140°F (-20° to 60°C)
Operating humidity	0 - 100% non-condensing
Certifications	<p><b>Exit Devices will maintain the following:</b> BHMA A156.3 (Grade 1), UL305, Windstorm WX98/9927, Tornado FEMA 361 ANSI/ICC500, ADA ANSI A117.1, UL 10C 3 hour, ANSI/BHMA 156.18-2012 QUV</p> <p><b>Electronics Certification:</b> UL294 indoor, FCC Part 15 - Commercial</p>

## Available status signals

- Request-to-exit
- Door position
- Interior cover tamper<sup>5</sup>
- Magnetic tamper
- Battery status
- Dog/undog status<sup>6</sup>
- Communication status<sup>5</sup>

## ENGAGE™ mobile applications

The ENGAGE mobile application delivers simple and convenient site device set-up.

<sup>1</sup> Maximum audit storage capacity of lock. Can vary upon access control software audit storage capacity when linked with an ENGAGE Gateway RS-485 to ACP.

<sup>2</sup> For offline management only.

<sup>3</sup> Software Alliance Member system managed

<sup>4</sup> Assuming dog and undog sequence use rate is 2 cycles per day, exception notification rate is one occurrence every 2 days, and door use of at least 200 cycles per day (sensor and wireless activity indication).

<sup>5</sup> Consult your access control software provider for specific scope of support.

<sup>6</sup> Software indicates dog/undog status based on sequence of events.

## Mechanical specifications

Dogging Options	Cylinder Dogging, Hex Dogging
ANSI standard	ANSI/BHMA A156.25-2013 (Indoor/Outdoor)
(Meets or exceeds)	ANSI/BHMA A156.2-2011, Series 4000, Grade 1

## Compatible exit devices

	33A/35A*	98/99*
RIM	✓	✓
SVR	✓	✓
CVR	✓	✓
CVC	✓	✓
Mortise	—	—
3 pt latch	✓	✓

\*For devices manufactured after 9/1997.

**RU not compatible with exit devices with the following options:**

QEL, DI/CDSI/HDSI, RX2, AD, SD, SS, PN, ES/PL, CX

**RM not compatible with exit devices with the following options:**

DI/CDSI/HDSI, RX2, AD, SD, SS, PN, ES/PL, CX

## Compatible device lengths

**For Remote Undogging (RU) Module installation:** All 33A/35A and 98/99 device types – 3' (914 mm) length to 2' 9" (838 mm), 4' (1219 mm) length to 3' 3" (991 mm)

**For Remote Monitoring (RM) Module only:** All 33A/35A and 98/99 device types – 3' (914 mm) length to 2' 8<sup>3</sup>/<sub>4</sub>" (832 mm), 4' (1219 mm) length to 3' 2<sup>3</sup>/<sub>4</sub>" (984 mm)

**For Remote Monitoring (RM) Module with EL/QEL:** All 33A/35A and 98/99 device types – 3' (914 mm) length only, 4' (1219 mm) length to 3' 5<sup>1</sup>/<sub>8</sub>" (1045 mm)

## How to order

### Remote Undogging

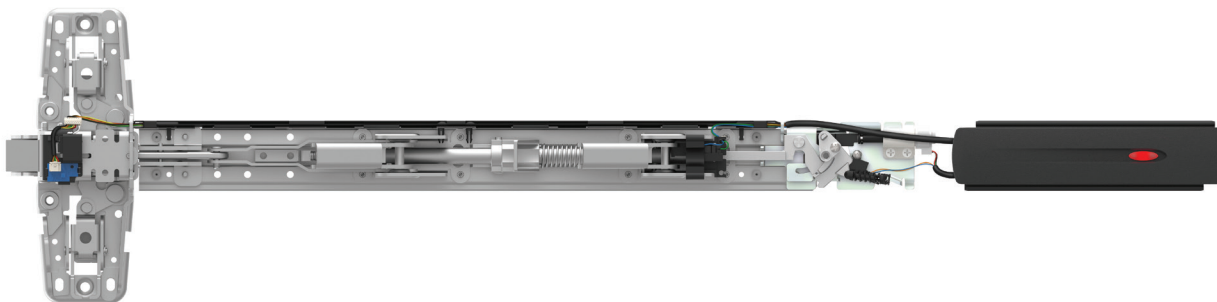
RU 3' kit	47258681
RU 4' kit	47258682

### Remote Monitoring

RM 3' kit	47258683
RM 4' kit	47258684

If the door and exit device are fire rated, and the exit device type is a 98/99-F Rim manufactured prior to April 1, 2018, a new center case will be required before proceeding with the installation of the RM kit. 98/99-F Rim Center Case Kit Less Cover, part number 050026.

**NOTE:** Specify CON for Allegion Connect





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# GWE Gateway

ENGAGE™ Gateway with  
IP (PoE) and RS-485  
communication



## Overview

The ENGAGE™ Gateway is designed to be used with devices that feature ENGAGE™ technology, including Schlage® Control™, LE, NDE, CTE as well as Von Duprin® Remote Undocking (RU) and Remote Monitoring (RM). The ENGAGE Gateway enables these devices to be connected in real-time with access control software alliances. Each ENGAGE Gateway can support up to 10 wireless devices for a wide range of applications, including resident units, office and suite entries, conference rooms, sensitive storage areas and perimeter entries.

### Security

ENGAGE technology was designed from the ground up with security in mind. ENGAGE technology leverages industry-leading security practices, including AES 256 bit and TLS encryption to provide customers with a secure, dependable experience.

### Reliability

Regular, frequent communication between the Gateway and linked ENGAGE™ enabled devices allows the Gateway to send commands such as lock, unlock and lock down from an ACP or IP host in real-time (commands are executed in < 5 seconds). All while enabling up to a 2-year battery life in linked wireless devices.

### Efficiency

The ENGAGE Gateway provides the ability to leverage existing IP based or RS-485 infrastructure for maximum efficiency. Ethernet connectivity provides ability to connect to the network for real-time access control directly from an in- or out-of-network host; to further simplify installation the Gateway can be powered over ethernet (PoE). Additionally, the ENGAGE Gateway is designed to work seamlessly in an existing RS-485 environment to extend access control to more doors. It can be powered from the access control panel (ACP) or from the 12VDC supply (included).

## Features and benefits

- Small form factor, versatile design fits almost anywhere
- Plug and play connectivity without opening or drilling into the housing. External recessed power, antenna, RS-485 and Ethernet (PoE) ports for easy set-up
- Designed to work seamlessly in an existing RS-485 environment
- Designed with PoE built in to leverage a building's existing network infrastructure for communication and power
- Easily and securely commissions in seconds with the ENGAGE™ mobile app—no proprietary handheld device required
- Secure AES-256 bit encrypted 2.4 GHz Bluetooth 4.0 communication between Gateway and ENGAGE™ enabled devices does not interfere with Wi-Fi networks
- Capable of managing up to 10 ENGAGE enabled devices for a wide range of applications
- Certifications: UL294, FCC Part 15, Industry Canada(IC), RoHS; PoE compliant to IEEE 802.3af/at
- Optional 12 VDC external power supply included to achieve UL294 Listing

## Gateway specifications

Communication protocol (Gateway to Lock)	2.4 GHz Bluetooth version 4.0 (spread spectrum, dynamic channel switching, 40 channels)
Transmission/encryption (Gateway to Lock)	AES-256 bit key
Credential verification time	< 1 second <sup>1</sup>
BLE communication range	A detailed site survey is recommended to determine range in each unique environment. Up to 30' can be achieved in typical building environments. Under ideal conditions, up to 50' line of sight may be possible. A detailed site survey is recommended to determine if the extended range can be achieved. Performance is dependent on local physical (geometry, construction materials, and furnishings) and RF environment. For planning purposes users should consider estimating at least 10% contingency for Gateway quantity.  Reference the ENGAGE Gateway Placement Guide for details.
Visual communications	LED status indicators
System interface	Ethernet to IP host <sup>2</sup> RS-485 to ACP <sup>3</sup>
Transmission/encryption (Gateway to ACP or IP host)	TLS version 1.2 or greater (to IP host) Optional AES-128 bit key (to ACP)
Gateway Discovery Methods (by partner IP host)	Zero-configuration (zeroconf), Static IP, or DHCP with hostname option
Power supply	PoE (12.95W compliant to IEEE 802.3af/at) 12 VDC or 24 VDC (terminals)
Operating current	PoE: 60 mA 12 VDC: 330 mA, 24 VDC: 100 mA
Operating temperature	32° to 120°F (0° to 49°C)
Operating humidity	0% to 100% non-condensing
Dimensions (H x W x D)	5.1" x 6.0" x 1.2" (13.0 cm x 15.3 cm x 3.04 cm)
Weight	8.6 oz (.24 kg)
Cable specifications	DC terminal input: 18AWG, 2 conductor (Belden 8760 or equivalent) up to 1000 ft (305 m) Gateway to ACP: 24AWG, 2 or 4 conductor shielded (Belden 9842, 9841 or equivalent) up to 4000 ft (1219 m) Gateway to router: CAT3, CAT5/5E or CAT6 up to 328 ft (100 m)
Data rate	Gateway to Lock: up to 1 Mbps (Bluetooth) Gateway to ACP: 9.6 kbps (RS-485) Gateway to IP Host: up to 100 Mbps (Ethernet)
Certifications	UL294, FCC Part 15, Industry Canada(IC), RoHS

## Additional features

### Real-time communication

Regular, frequent communication between the Gateway and linked ENGAGE enabled devices allows the Gateway to send commands such as lock, unlock and lock down from an ACP or IP host in real-time (commands are executed in < 5 seconds). All while enabling up to a 2-year battery life in linked wireless devices.

### Secure encrypted transmissions

All communications between the Gateway, the ENGAGE mobile app and ENGAGE enabled devices are encrypted with an AES-256 bit key to provide virtually uncompromisable security. Additionally, all communications between the Gateway and an IP host over an existing network are secured with TLS 1.2 (or newer) encryption.

### Visual indications

- Power up
- Factory default state
- Connected to mobile device
- Normal operation
- Linking status
- Diagnostics

### Edge device status\* (available through host connection)

- Card data
- Door position
- Loss of communication
- Request-to-exit
- Low battery
- Interior cover tamper guard
- Lock/unlock status
- Request-to-enter
- Deadbolt position
- Interior push button

### Configurable items from Gateway\*

- Relock parameters
- Card data format conversion
- Extended unlock
- Fail safe/fail secure/fail as-is
- Door held pre-alarm
- Cache memory parameters
- Reader configuration
- Keypad configuration
- Inside pushbutton configuration
- User interface configuration

\*Capability varies by edge device. Refer to device solution sheet.

## Ordering information

- GWE – ENGAGE™ Gateway with RS-485 and IP (PoE) connectivity. Supports up to 10 ENGAGE™ enabled devices with select brands of access control panels.

<sup>1</sup> Dependant on latency time of access control system

<sup>2</sup> Supports NDE, LE, CTE, Schlage Control Smart locks and Von Duprin RU and RM

<sup>3</sup> Supports NDE, LE and Von Duprin RU and RM

## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

## Networked locking



This section of the Electronic Access Control catalog covers networked AD Series adaptable electronic locks and other devices and accessories that can be easily integrated into an access control system.

### Overview

The AD Series was built from the ground up to provide more options, more functionality and more compatibility than any other electronic locking solution on the market today. The AD Series meets today's security needs while also easily adapting to future needs as they emerge. The AD Series is designed on an open architecture platform to provide users with enhanced flexibility and scalability, resulting in an investment that's every bit as secure as your facility.

#### Features

The AD Series simplifies installation by combining the electrified lock, reader, door position switch, request-to-exit, and other status monitors together. Panel interface options such as RS-485, Wiegand and Clock and Data ensure seamless, real-time communication with the access control system. The AD Series is available with nine different credential reader options. For added convenience, security personnel can configure failure modes, card formats and other features in the field. The AD Series is compatible with most popular models of Conventional, SFIC and FSIC cylinders. It is also compatible with popular exit devices with low current REX switches including Von Duprin 98/99 and 98/99XP (Rim, Mortise, SVR and CVC/CVR on metal doors only), Von Duprin 22/22F (Rim and SVR only) as well as Falcon 25 (rim only). The AD Series is ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified and is UL 294 Listed.

#### Benefits

The modular design of the AD Series creates an easy and affordable way to expand a security system and integrate emerging technologies over time and when budgets permit. Customers can easily upgrade readers or networking options – all without having to remove the lock from the door. And the wireless technology gives you the option to install access control on doors that have traditionally been difficult to wire while providing real-time monitoring and centralized lockdown capabilities. The AD Series was designed to be the right choice for today, and ready for whatever the future holds. With the AD Series you can be assured that your investment is every bit as protected as your facility.

## Lock options:

AD Series networked locks have several options to choose from including:

- **Class:** AD-300 hardwired, AD-400 wireless, AD-302 FIPS 201-2 compliant, AD-402 FIPS 201-2 compliant (Choice of class may limit other available options)
- **Chassis:** Cylindrical, mortise, mortise deadbolt, exit trim
- **Function<sup>1</sup>:** Classroom/storeroom, office, privacy, apartment
- **Reader<sup>1</sup>:** Keypad, magnetic stripe, smart and multi-technology (proximity 125 kHz and smart card 13.56 MHz). All card readers are available with + PIN option for added security.
- **Lever style:** Athens, Broadway, Boardwalk, Latitude, Longitude, Rhodes, Sparta and Tubular (Tactile warning options available)
- **Finish:** 626 satin chrome, 605 bright brass, 606 satin brass, 612 satin bronze, 619 satin nickel, 625 bright chrome, 643e aged bronze, 626AM satin chrome with antimicrobial
- **Keyway/cylinder:** See lever and cylinder compatibility data sheet (010432)
- **Exit trim:** See AD Series exit trim compatibility data sheet (004382)

### AD Series FIPS 201-2 compliant solution:

The AD Series is an ideal solution for applications which require approval by the U.S. Federal Government under HSPD-12 for FIPS 201-2 compliance. In order to meet requirements, the AD Series lock must be part of an integrated system tested and formally approved to meet the government FIPS 201-2 criteria. Refer to the [Approved Products list](#) to see what Physical Access Control Software (PACS) providers have met the requirement and are permitted to deploy AD-302 and -402 electronic locks in your facility.

It is possible to upgrade existing, non-compliant AD Series locks to the new standard as follows:

- Field upgrade AD Series locks not currently set up for FIPS 201-1 by replacing the reader module with a FIPS 201-2 compliant FMK reader (sold separately)
- Field upgrade AD Series FIPS 201-1 compliant locks by uploading FIPS 201-2 compliant firmware<sup>2</sup>

Both types of upgrades should be performed by an approved PACS provider.

#### Notes:

- 1 Check with access control provider to verify support of reader/credential formats and lock functions.
- 2 Existing FMK reader must have a manufacture date after August 2016.

## Extend the reach of access control with proven 900 MHz wireless technology

The Schlage AD Series wireless system allows users to extend the reach of access control to areas where running wires is difficult, expensive or virtually impossible. Installations on interior doors, remote doors, historic buildings, 24/7 facilities, elevators and parking gates are now made possible by eliminating the need to run wires directly to the access point. Options are available to accommodate Wiegand or Clock and Data, as well as RS-485 connections to the access control system.

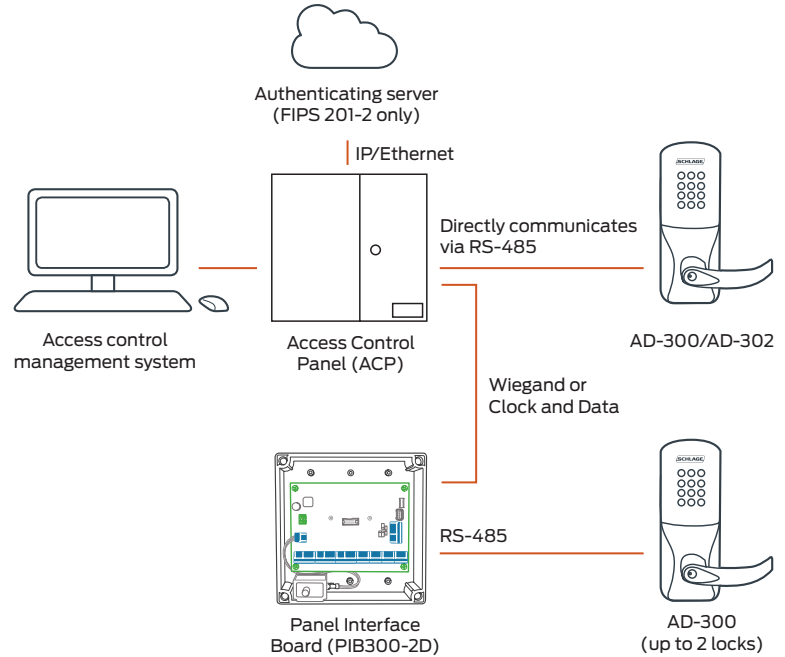
The AD Series wireless system communicates via 900 MHz frequency to a Panel Interface Module (PIM) which is then hardwired back to the access control panel. Each PIM can support up to 16 wireless devices within a 200' range in most facilities and up to 1000' with clear line of sight. The 900 MHz band enables longer transmission ranges; wavelengths travel a greater distance and better penetrate typical building construction – allowing for simplified system design. And since 900 MHz operates on a different frequency versus Wi-Fi®, it won't burden existing IT infrastructure.

Secure and reliable wireless communication (heartbeat) from the PIM to the access control system occurs on a periodic basis and is field configurable; the factory default is set at 10 minutes. The AD Series wireless system utilizes patented Wake-Up On Radio™ technology to deliver real-time activation at a remote wireless lock while maintaining up to a 2 year battery life. This feature, which is configurable from 10 seconds to as fast as 1 second, enables centralized emergency lockdown and unlock commands in applications where both speed and battery life are critical.

In addition to the AD Series locks, a variety of wireless devices are available to extend the reach of access control to applications which may be difficult to wire. These include wireless remote antennas (ANT400), Wireless Portable Readers (WPR400), Wireless Reader Interfaces (WRI400), Wireless Repeaters (REPTR400), Wireless Gate Control Kits (GCK400), and Wireless Elevator Control Kits (ECK400).

## AD-300 and AD-302 FIPS 201-2 compliant networked hardwired solution:

- Direct connection from lock to ACP via RS-485 with specific Allegion Software Alliance Member systems.
- PIB300-2D required for Wiegand or Clock and Data connection; supports up to 2 AD-300 locks.
- Utilize relay/dry contact board (RLBD) if supervised inputs are required in Wiegand systems.
- Verify requirements for reader Interface or gateway with your access control provider.
- FMK reader can now be ordered as separate component for upgrade to a FIPS 201-2 compliant lock. It must utilize the most current firmware and be applied within a FIPS 201-2 approved PACS provider system. See [Approved Products list](#) for further detail.





## AD-300/AD-302 Hardwired lock features

Communication to/from controller	Direct - RS-485	Wiegand or Clock and Data
<b>Features</b> Consult with access control system provider for specific requirements		
Panel interface module	N/A	PIB300-2D
Number of locks per panel interface module	N/A	Up to 2
<b>Reader options</b> Consult with access control system provider for supported card formats		
Keypad only	AD-300 only <sup>1</sup>	AD-300 only <sup>1</sup>
Magnetic stripe card	AD-300 only <sup>1</sup>	AD-300 only <sup>1</sup>
FIPS 201-2 multi-technology - 125 kHz and 13.56 MHz	Yes <sup>1,2</sup>	Yes <sup>1,2</sup>
Multi-technology - 125 kHz and 13.56 MHz	Yes <sup>1</sup>	Yes <sup>1</sup>
PIV and PIV-I compatible <sup>2</sup>	Yes <sup>1,2</sup>	Yes <sup>1,2</sup>
Smart – iClass compatible	Yes <sup>1</sup>	Yes <sup>1</sup>
Card + PIN	Yes <sup>1</sup>	Yes <sup>1</sup>
<b>Status monitors</b> Consult with access control system provider for supported card formats		
Request-to-exit	Yes <sup>1</sup>	Yes <sup>1</sup>
Door position switch	Yes <sup>1</sup>	Yes <sup>1</sup>
Mechanical key override (ATK)	Yes <sup>1</sup>	No
Request-to-enter	Yes <sup>1</sup>	Yes <sup>1</sup>
Low battery status	N/A	N/A
Communication status: RF/RS-485	Yes/ Yes <sup>1</sup>	Yes/ Yes <sup>1</sup>
Remote lockdown/unlock	Yes	Yes
Deadbolt position	Yes <sup>1</sup>	No
Interior push button	Yes <sup>1</sup>	No
<b>Functions</b> Consult with access control system provider for specific support		
Classroom/storeroom (70)	Yes <sup>3</sup>	Yes <sup>3</sup>
Privacy (40)	Yes <sup>1</sup>	No
Office (50)	Yes <sup>1</sup>	No
Apartment (60)	Yes <sup>1</sup>	No

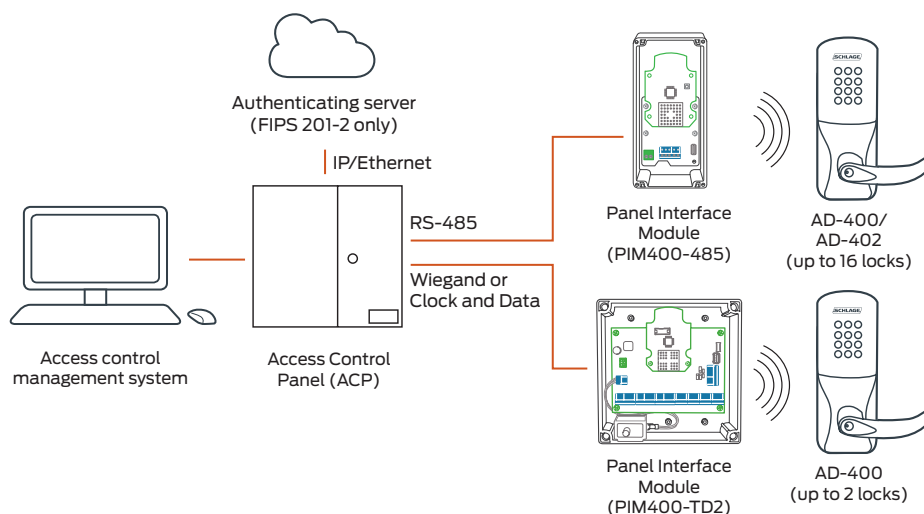
<sup>1</sup> As supported by access control system.

<sup>2</sup> AD Series FIPS 201-2 compliant solution: The AD Series is an ideal solution for applications which require approval by the U.S. Federal Government under HSPD-12 for FIPS 201-2 compliance. In order to meet requirements, the AD Series lock must be part of an integrated system tested and formally approved to meet the government FIPS 201-2 criteria. Refer to the [Approved Products](#) list to see what Physical Access Control Software (PACS) providers have met the requirement and are permitted to deploy AD-302 and -402 electronic locks in your facility.

<sup>3</sup> Not available with mortise deadbolt chassis.

## AD-400 and AD-402 FIPS 201-2 compliant networked wireless solution:

- PIM400-TD2 required for Wiegand or Clock and Data connections; supports up to 2 AD Series devices.
- PIM400-485, if supported by OEM provider, supports up to 16 AD-400/AD-402 devices.
- Utilize relay/dry contact board (RLBD) if supervised inputs are required in Wiegand systems.
- Verify requirements for reader interface or gateway with your access control provider.
- FMK reader can now be ordered as separate component for upgrade to a FIPS 201-2 compliant lock. It must utilize the most most current firmware and be applied within a FIPS 201-2 approved PACS provider system. See [Approved Products list](#) for further detail.



## AD-400/AD-402 Wireless lock features

Communication to/from controller	Direct - RS-485	Wiegand or Clock and Data
<b>Features</b> Consult with access control system provider for specific requirements		
Panel Interface Module	PIM400-485 (sold exclusively through OEM providers)	PIM400-TD2
Number of locks per panel interface module	Up to 16	Up to 2
<b>Reader options</b> Consult with access control system provider for supported card formats		
Keypad only	AD-400 only <sup>1</sup>	AD-400 only <sup>1</sup>
Magnetic stripe card	AD-400 only <sup>1</sup>	AD-400 only <sup>1</sup>
FIPS 201-2 multi-technology - 125 kHz and 13.56 MHz	Yes <sup>1, 2</sup>	N/A
Multi-technology - 125 kHz and 13.56 MHz	Yes <sup>1</sup>	Yes <sup>1</sup>
PIV AND PIV-I compatible <sup>1</sup>	Yes <sup>1, 2</sup>	Yes <sup>1, 2</sup>
Smart-iClass compatible	Yes <sup>1</sup>	Yes <sup>1</sup>
Card + PIN	Yes <sup>1</sup>	Yes <sup>1</sup>
<b>Status monitors</b> Consult with access control system provider for specific support		
Request-to-exit	Yes <sup>1</sup>	Yes <sup>1</sup>
Door position switch	Yes <sup>1</sup>	Yes <sup>1</sup>
Mechanical key override (ATK)	Yes <sup>1</sup>	No
Request-to-enter	Yes <sup>1</sup>	Yes <sup>1</sup>
Low battery status	Yes <sup>1</sup>	Yes <sup>1</sup>
Communication status: RF/RS-485	Yes/ Yes <sup>1</sup>	Yes/ Yes <sup>1</sup>
Remote lockdown/unlock	Yes <sup>1</sup>	Yes <sup>1</sup>
Deadbolt position	Yes <sup>1</sup>	No
Interior push button	Yes <sup>1</sup>	No
<b>Functions</b> Consult with access control system provider for specific support		
Classroom/storeroom (70)	Yes <sup>3</sup>	Yes <sup>3</sup>
Privacy (40)	Yes <sup>1</sup>	No
Office (50)	Yes <sup>1</sup>	No
Apartment (60)	Yes <sup>1</sup>	No

<sup>1</sup> As supported by access control system.

<sup>2</sup> AD Series FIPS 201-2 compliant solution: The AD Series is an ideal solution for applications which require approval by the U.S. Federal Government under HSPD-12 for FIPS 201-2 compliance. In order to meet requirements, the AD Series lock must be part of an integrated system tested and formally approved to meet the government FIPS 201-2 criteria. Refer to the [Approved Products](#) list to see what Physical Access Control Software (PACS) providers have met the requirement and are permitted to deploy AD-302 and -402 electronic locks in your facility.

<sup>3</sup> Not available with mortise deadbolt chassis.

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## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).





# AD-400

Networked wireless  
electronic lock



## Overview

AD Series electronic locks from Schlage® are designed to be modular and provide more options to choose from, more functionality in the lock and more compatibility with existing systems. Its patented modular design allows the lock to be customized to fit the needs of an application now, and changed to meet future needs without removing it from the door.

Factory orderable options include choices of credential readers, chassis type, network configurations, locking functions, power options, lever styles and finishes. It also offers a wide selection of features that can be configured in the field to customize your openings.

To simplify installation, the AD Series combines all the hardware components required at the door for a complete access control system into one integrated design that includes the electrified lock, credential reader, request-to-exit and request-to-enter sensors, door position switch, tamper guard and more.

The AD-400 wireless networked lock gives you many of the key benefits of a hardwired access control system — without the wires. This allows you to secure doors that were traditionally difficult to run wires to in the past—and increase the security throughout your facility.

The AD-400 has a number of features built in, that are configurable in the field and a long list of items that can be monitored by access control software. Please consult one of our Software Alliance Members for details on the integration of specific features.

## Features and benefits

- Open architecture platform
- Panel interface options ensure seamless communication with your system
- Non-invasive installations for historic buildings and sensitive areas
- Secure encrypted data transmission
- Unique communication protocols that won't interfere with other wireless networks
- Patent-pending wireless feature enables centralized lockdown in less than 10 seconds while still optimizing battery life up to 2 years
- Wireless accessories available for remote, gate, elevator and portable (mustering) applications
- Allows use of smart/mobile device as credential with Schlage and aptiQ® mobile (multi-technology reader only)<sup>1</sup>
- ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL10C, FCC Part 15, ADA, RoHS, Industry Canada (IC), FL12400<sup>2</sup>, FL1591<sup>2</sup>, FL13013<sup>2</sup> and FL14482<sup>2</sup>

<sup>1</sup> Refer to the Schlage/aptiQ mobile credential compatibility chart for a list of certified devices.

<sup>2</sup> Applies to cylindrical and mortise chassis only

## Reliable communications

Secure and reliable wireless communication with the Panel Interface Module (PIM) is accomplished using 900 MHz frequency. 900 MHz band enables longer transmission ranges because signal propagation with longer wavelengths travel a greater distance and better penetrate typical building construction – allowing for simplified system design.

## Wake-Up on Radio

This feature enables implementation of wireless locks in applications where centralized lockdown or unlock is required. 'Wake Up on Radio' utilizes patent-pending technology to enable real-time activation at a remote battery-powered wireless lock. The technology is configurable from 10 to 1 second increments. When Wake-Up on Radio is used in critical applications Dynamic Channel Switching should also be enabled.

## Panel Interface Module (PIM400)

The PIM400 (sold separately) is required for communication between the AD-400 wireless lock and the access control panel, and can support up to 16 locks depending on your access control system.

## AD-400 electronic lock specifications

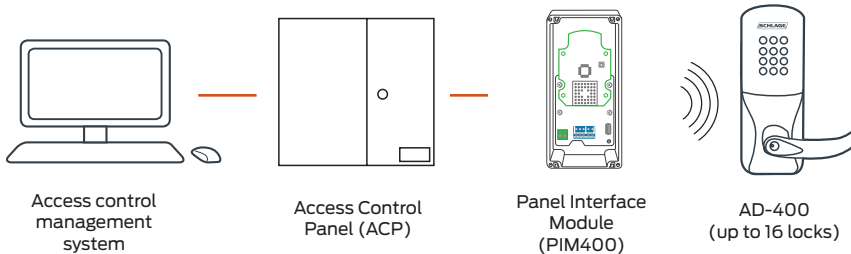
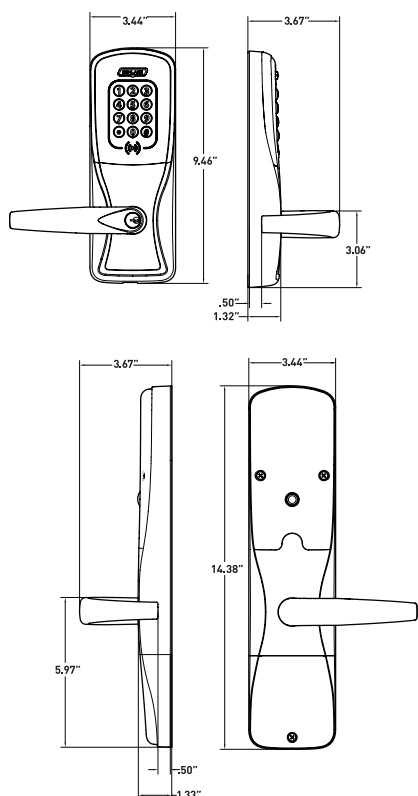
Modulation	900 MHz spread spectrum, direct sequence, 10 channels
Frequency range	902-928 MHz
Transmission/encryption	AES-128 bit key
Credential verification time	< 1 second <sup>1</sup>
Wake-Up on Radio	Responds to lock/unlock command from host in less than 10 seconds in battery powered applications (per field configuration)
Communication range	Up to 200 ft with obstructions (normal building construction), up to 1000 ft clear line of sight
RF interference avoidance	Configurable dynamic channel switching
Data rate	RF: 40 kbps
Visual/audible communications	Tri-colored LED's and audible indicators (field configurable)
System interface	RS-485, Wiegand, or Clock & Data via PIM400 to host
Power supply	4AA, 8AA, 12 VDC or 24 VDC
Voltage range	4 VDC to 26 VDC
Max current requirement	Up to 250 mA
Battery life	Up to 2 yrs with 4AA
Operating temperature/ exterior	-31° to 151°F (-35° to 66°C)
Operating temperature/ interior	32° to 120°F (0° to 49°C) (battery)
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL10 C, FCC Part 15, ADA, RoHS
Accessories	Panel Interface Module (PIM400), Handheld Device (HHD), remote antennas for PIM400 to extend range, Dry Contact Relay Board (RLBD) may be required for supervised inputs (Wiegand systems)

### Functions

- Classroom/storeroom<sup>2</sup>
- Office<sup>2, 3</sup>
- Privacy<sup>3</sup>
- Apartment<sup>3</sup>

### Available status signals

- Lock/unlock status<sup>4</sup>
- Request-to-exit
- Door position
- Mechanical key override<sup>3</sup>
- Deadbolt position<sup>3</sup>
- Interior push button<sup>3</sup>
- Interior cover tamper guard<sup>3</sup>
- Battery status
- Communication status<sup>3</sup>
- Request-to-enter<sup>3</sup>



<sup>1</sup> Lock requires less than 100 msec, response time does not include latency time of ACP.

<sup>2</sup> Classroom/storeroom and office function not available with mortise deadbolt option.

<sup>3</sup> Consult your access control software provider for specific scope of support. Interior pushbutton, mechanical key override and deadbolt position are only available when linked via PIM400-485.

<sup>4</sup> Software indicates lock/unlock status based on sequence of events, but cannot validate mechanical clutch position unless monitored on RS-485 connection.

## Mechanical specifications

Chassis	Cylindrical	Mortise	Exit trim
Handing	Handed to order, field reversible		
ANSI standard (Meets or exceeds)	A156.25 A156.2 Series 4000 Grade 1	A156.25 A156.13 Series 1000 Grade 1	A156.25 A156.3
Door thickness	1 3/4" standard, 1 3/8" to 2 3/4" optional (available in 1/8" increments)		
Backset	Standard: 2 3/4" Optional: 2 3/8", 3 3/4", 5"	2 3/4" only	Defined by exit device
Latch bolt	Standard: 1/2" throw Optional: 3/4" throw	Standard: 3/4" throw Optional: 1" throw on mortise deadbolt	Provided by exit device
Levers	Pressure cast zinc, plated		
Strike	Standard: 1 1/16" lip, ANSI, 1 1/4" x 4 7/8" Optional: Additional configurations available please see price book		Provided by exit device
Cylinder and keys	Schlage® 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys standard. Additional options available including SFIC, FSIC and competitor brands. See lever and cylinder compatibility data sheet (010432)		

## Multi-technology reader specification

Frequency	125 kHz proximity 13.56 MHz smart
Standards	ISO 15693 ISO 14443
Read range	Up to 1.25" on 125 kHz proximity Up to 0.75" on 13.56 MHz smart
125 kHz proximity credential use	<b>Compatibility:</b> Schlage, XceedID®, HID®, GE/CASI ProxLite®, AWID® and LenelProx® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob and PVC adhesive disk
13.56 MHz smart credential use	<b>Secure sector compatibility:</b> Schlage and aptiQ® MIFARE Classic®, XceedID, Schlage MIFARE Plus®, Schlage and aptiQ MIFARE® DESFire® EV1 with PACSA, Schlage and aptiQ mobile credentials; PIV and PIV-I <sup>1,2</sup> <b>CSN only compatibility:</b> DESFire, HID iClass®, Inside Contactless Pico Tag®, MIFARE, MIFARE DESFire EV1, ST Microelectronics®, Texas Instruments Tag-It®, Phillips I-Code® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob, wearable wristband, mobile, PVC patch
Certifications/standards	FCC, Industry Canada (IC), UL 294 Listed, ISO standard 15693 and ISO standard 14443
Options	12 button, 3x4 matrix backlit keypad

<sup>1</sup> FIPS 201-1 compliant option available: The AD Series can be used in applications which require approval by the U.S. Federal Government under HSPD-12 for FIPS 201-1 compliance. Specific components are required, please see the AD-402 data sheet or AD-302 data sheet for complete details.

<sup>2</sup> 75 bit output format default. Configurable to other output formats.

<sup>3</sup> Please refer to the Schlage/aptiQ mobile credential compatibility chart for a list of certified devices.

## Available AD Series reader modules

								
<b>Multi-technology</b> <ul style="list-style-type: none"><li>Proximity</li><li>Smart card</li><li>Mobile</li></ul>  KEYPAD	<b>Multi-technology</b> <ul style="list-style-type: none"><li>Proximity</li><li>Smart card</li><li>Mobile</li></ul>	<b>Smart – iClass compatible</b> <ul style="list-style-type: none"><li>Smart card</li></ul>  KEYPAD	<b>Smart – iClass compatible</b> <ul style="list-style-type: none"><li>Smart card</li></ul>	<b>Magnetic stripe (insertion)</b>  KEYPAD	<b>Magnetic stripe (insertion)</b>	<b>Magnetic stripe (swipe)</b>  KEYPAD	<b>Magnetic stripe (swipe)</b>	<b>Keypad</b>

## AD Series exit trim:

AD-400 exit trim is exclusively compatible with Von Duprin 98/99 and 98/99XP (Rim, Mortise, and SVR. CVC and CVR on metal doors only), Von Duprin 22/22F (Rim and SVR) and Falcon 25 (Rim) exit devices made by Allegion. The proper low current request-to-exit switch (RX-LC or AE) is required.

Part numbers for request-to-exit switch:

- Von Duprin: 050281
- Falcon: 650359

## Benefits of AD Series multi-technology readers:

- Reads multiple brands of both proximity (125 kHz) and smart (13.56 MHz) technologies with single reader
- Allows use of smart/mobile device as credential with Schlage or aptiQ mobile technology<sup>3</sup>
- Allows facility to migrate to more secure credential technologies over time and as budgets permit

## Additional readers

### Smart – iClass compatible

- Smart card reader only
- Reads secure sector of HID iClass, iClass SE, iClass SEOS, iClass Standard Key, and iClass Elite Key; Schlage MIFARE Classic, MIFARE Plus, and MIFARE EV1
- BLE mobile credential not supported

### Magnetic stripe

- Available with choice of insertion or swipe style readers
- Triple track reader (1, 2 or 3), field configurable
- ABA, ISO76XX standard

### Keypad

- Backlit keypad
- 12 button, 3x4 matrix



# Ordering information

Available through one of our GSA schedule 84 approved distributions; BAA options available

AD-400-CY-70-MG-SPA-626-PD-S123-RH-4B-13-049-10-025-1 3/4

Series	Class	Chassis	Function	Reader	Lever style	Finish	Lever cylinder	Keying type	Handing	Battery	Backset & latch	Strike	Door thickness
1	2	3	4	5	6	7	8	9	10	11	12	13	14

## Selections correspond with the numbers above

Standard options are indicated in bold. See price book for specific configuration options.

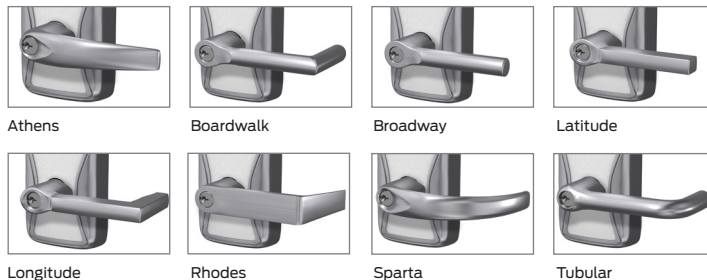
<b>3</b>	<b>Chassis</b>
CY	Cylindrical
MS	Mortise
MD	Mortise deadbolt
993R	Exit trim – Rim/CVC/CVR
993S	Exit trim – SVR
993M	Exit trim – mortise
993DT	Non-functioning dummy trim for exit
<b>4</b>	<b>Function</b>
70	Classroom/storeroom
50	Office
40	Privacy
60	Apartment
Lock function capabilities are determined by users access control system	
<b>5</b>	<b>Reader</b>
<b>KP</b>	<b>Keypad</b>
MG	Magnetic stripe (insertion)
MGK	Magnetic stripe + keypad (insertion)
MS	Magnetic stripe (swipe)
MSK	Magnetic stripe + keypad (swipe)
MT	Multi-technology (125kHz and 13.56 MHz)
MTK	Multi-technology + keypad (125kHz and 13.56 MHz)
FMK	FIPS 201-1 compliant multi-technology + keypad (125 kHz and 13.56 MHz)
Si	Smart–iClass compatible
SiK	Smart–iClass compatible + keypad
DT	Dummy trim

<b>6</b>	<b>Lever</b>
ATH	Athens
BRK	Boardwalk
BRW	Broadway
LAT	Latitude
LON	Longitude
RHO	Rhodes
SPA	Sparta
TLR	Tubular
Available with tactile warning options	
<b>7</b>	<b>Finish</b>
<b>626</b>	<b>Satin chrome</b>
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial
<b>8</b>	<b>Lever cylinder type</b>
<b>PD</b>	<b>Schlage 6-pin Conventional key-in-lever cylinder</b>
See price book for other SFIC, FSIC and less cores options available. Compatible with Schlage®, Sargent®, Corbin Russwin, Medeco® and Yale®.	
<b>9</b>	<b>Keyway type</b>
<b>S123</b>	<b>Everest 29</b>
See price book for other available keyway options including master keying	
<b>10</b>	<b>Handing</b>
<b>RH</b>	<b>Right handed</b>
LH	Left handed
Field reversible	

<b>11</b>	<b>Battery</b>
<b>4B</b>	<b>4AA</b>
8B	8AA
<b>12</b>	<b>Backset &amp; latch or armor front</b>
<b>Cylindrical</b>	
<b>13-049</b>	<b>2 3/4" backset, deadlatch, square corner, 1 1/8" x 2 1/4"</b>
<b>Mortise</b>	
<b>09-663</b>	<b>Armor front, 1 1/4" wide, square corner</b>
See price book for mortise deadbolt and other backset and latch options or armor front options	
<b>13</b>	<b>Strike</b>
<b>Cylindrical</b>	
<b>10-025</b>	<b>1 3/16" lip, ANSI, no box, 1 1/4" x 4 7/8"</b>
<b>Mortise</b>	
<b>10-072</b>	<b>1 3/16" lip, 1 1/4" x 4 7/8" square corner, box</b>
See price book for other available strikes	
<b>14</b>	<b>Door thickness</b>
<b>1 3/4"</b>	
Other thicknesses available between 1 3/8" and 2 3/4"	
See price book for detail	

## Lever styles

Conventional cylinders shown, SFIC and FSIC also available.



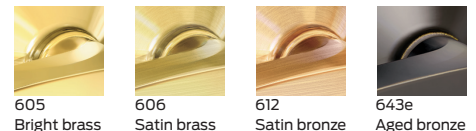
## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

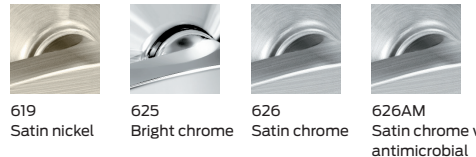
KRYPTONITE ■ LCN ■ SCHLAGE ■ STEELCRAFT ■ VON DUPRIN

## Finishes

Warm tone finishes



Cool tone finishes



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# AD-300

Networked hardwired  
electronic lock



## Overview

AD Series electronic locks from Schlage® are designed to be modular and provide more options to choose from, more functionality in the lock and more compatibility with existing systems. Its patent-pending modular design allows the lock to be customized to fit the needs of an application now, and changed to meet future needs without removing it from the door.

Factory orderable options include choices of credential readers, chassis type, network configurations, locking functions, lever styles and finishes. It also offers a wide selection of features that can be configured in the field to customize your openings.

To simplify installation, the AD Series combines all the hardware components required at the door for a complete access control system into one integrated design that includes the electrified lock, credential reader, request-to-exit and request-to-enter sensors, door position switch, tamper switch and more.

The AD-300 has a number of features built-in that are configurable in the field and a long list of items that can be monitored by access control software. Please consult one of our Software Alliance Members for details on the integration of specific features.

## Features and benefits

- Open architecture platform
- Panel interface options ensure seamless communication with your system
- Real-time communication between access control system and lock
- Field configurable fail safe/fail secure and other capabilities per code
- Available in cylindrical, mortise, mortise deadbolt and exit trim
- Compatible with major brands of master key systems
- A wide selection of credential readers and networking options to choose from
- Allows use of smart/mobile device as credential with Schlage or aptiQ® mobile (multi-technology reader only)<sup>1</sup>
- FIPS 201-2 compliant when applied with the FIPS multi-technology plus keypad reader module (FMK)
- ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL10C, FCC Part 15, ADA, RoHS, Industry Canada (IC), FL12400<sup>2</sup>, FL1591<sup>2</sup>, FL13013<sup>2</sup> and FL14482<sup>2</sup>

<sup>1</sup> Refer to the Schlage/aptiQ mobile credential compatibility chart for a list of certified devices.

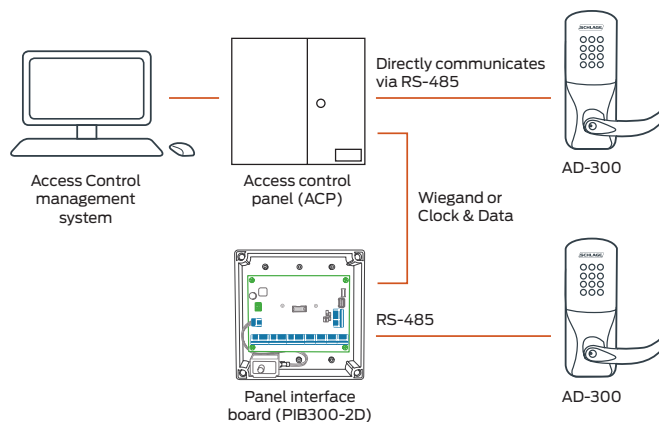
<sup>2</sup> Applies to cylindrical and mortise chassis only

## AD-300 electronic lock specifications

Credential verification time	< 1 second <sup>1</sup>
Data rate	RS-485 : 9.6 kbps
Visual/audible communications	Tri-colored LED's and audible indicators (field configurable)
System interface	Wiegand or Clock & Data via PIB300 or RS-485 directly
Power supply	12 VDC or 24 VDC
Voltage range	4 VDC to 26 VDC
Max current requirement	Up to 250 mA
Cable specifications for power	18AWG, 2 conductor (Belden 8760 or equivalent)
Cable distance for power	AD-300 to power supply: up to 1000 ft (303 m)
Cable specifications for data	24AWG, 2 or 4 conductor shielded (Belden 9841, 9842 or equivalent)
Cabling distance for data	AD-300 to PIB300 or ACP, RS-485: up to 4000 ft (1219 m)
Operating temperature	-31° to 151°F (-35° to 66°C)
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL10 C, FCC Part 15, ADA, RoHS
Accessories	Panel Interface Board (PIB300), Handheld Device (HHD), Dry Contact Relay Board (RLBD) may be required for supervised inputs (Wiegand systems)

## PIB300-2D specifications

Communication range	PIB300 to lock, RS-485: up to 4000 ft (1219 m) PIB300 to ACP, Wiegand or Clock & Data: up to 500 ft (152 m)
Visual/audible	13 LEDs for status indicators
System interface	Wiegand or Clock & Data
Power supply	12 VDC or 24 VDC
Voltage range	9.5 VDC to 26 VDC
Max current requirement	Up to 250 mA
Operating temperature	-31° to 151°F (-35° to 66°C)
Dimensions (H x W x D)	7.1" x 7.1" x 3.0" (18.0 cm x 18.0 cm x 7.6 cm)
Weight	1.25 lb (.57 kg)
Cable specifications (PIB300 to ACP)	22AWG, 8 conductor shielded (Alpha 1298C or equivalent)
Certifications	NEMA 1, 4, 4X, 6; UL 294; FCC Part 15; RoHS



## Functions

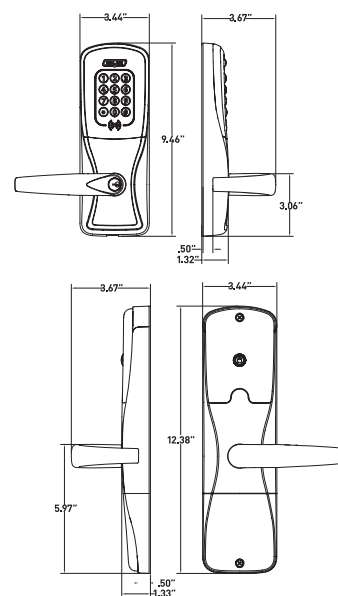
- Classroom/storeroom<sup>2</sup>
- Office<sup>2, 3, 4</sup>
- Privacy<sup>3, 4</sup>
- Apartment<sup>3, 4</sup>

## Available status signals

- Lock/unlock status<sup>5</sup>
- Request-to-exit
- Door position
- Mechanical key override<sup>3</sup>
- Deadbolt position<sup>3</sup>
- Interior cover tamper guard<sup>3</sup>
- Communication status<sup>3</sup>
- Interior push button<sup>3</sup>
- Request-to-enter<sup>3</sup>

## Panel Interface Board (PIB300-2D)

If the system requires Wiegand or Clock & Data protocol (rather than a direct RS-485 connection), the AD Series open architecture platform connects up to two AD-300 locks to the Panel Interface Board (PIB300 - sold separately, if required) that seamlessly connects to an access control panel or reader interface board. All monitoring is captured at the remote monitoring station.



<sup>1</sup> Lock requires less than 100 msec, response time does not include latency time of ACP.

<sup>2</sup> Classroom/storeroom and office function not available with mortise deadbolt option.

<sup>3</sup> Consult your access control software provider for specific scope of support. Interior pushbutton, mechanical key override and deadbolt position are only available when linked via PIM400-485.

<sup>4</sup> Not available on exit trim.

<sup>5</sup> Software indicates lock/unlock status based on sequence of events, but cannot validate mechanical clutch position unless monitored on RS-485 connection.

## Mechanical specifications

Chassis	Cylindrical	Mortise	Exit trim
Handing	Handed to order, field reversible		
ANSI standard (Meets or exceeds)	A156.25 A156.2 Series 4000 Grade 1	A156.25 A156.13 Series 1000 Grade 1	A156.25 A156.3
Door thickness	1 3/4" standard, 1 3/8" to 2 3/4" optional (available in 1/8" increments)		
Backset	Standard: 2 3/4" Optional: 2 3/8", 3 3/4", 5"	2 3/4" only	Defined by exit device
Latch bolt	Standard: 1/2" throw Optional: 3/4" throw	Standard: 3/4" throw Optional: 1" throw on mortise deadbolt	Provided by exit device
Levers	Pressure cast zinc, plated		
Strike	Standard: 1 3/16" lip, ANSI, 1 1/4" x 4 7/8" Optional: Additional configurations available please see price book		Provided by exit device
Cylinder and keys	Schlage® 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys standard. Additional options available including SFIC, FSIC and competitor brands. See lever and cylinder compatibility data sheet (010432)		

## Multi-technology reader specification

Frequency	125 kHz proximity and 13.56 MHz smart card
Standards	Standards ISO standard 15693 and ISO 14443
Maximum read range	Up to 1.25" on 125 kHz proximity, up to 0.75" on 13.56 MHz smart card
125 kHz proximity credential use	<b>Compatibility:</b> Schlage, XceedID®, HID®, GE/CASI ProxLite®, AWID® and LenelProx® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob, and PVC adhesive disk
13.56 MHz smart credential use	<b>Secure sector compatibility:</b> Schlage and aptiQ® MIFARE Classic®, XceedID, Schlage MIFARE Plus®, Schlage and aptiQ MIFARE® DESFire® EV1 with PACSA, Schlage and aptiQ mobile credentials; PIV and PIV-1 <sup>1,2</sup> <b>CSN only compatibility:</b> DESFire, HID iClass®, Inside Contactless Pico Tag®, MIFARE, MIFARE DESFire EV1, ST Microelectronics®, Texas Instruments Tag-It®, Phillips I-Code® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob, wearable wristband, mobile, and PVC adhesive patch
Certifications/standards	FCC, Industry Canada (IC), UL 294 Listed, ISO standard 15693, and ISO standard 14443
Style/layout	Option for 12 button, 3x4 matrix backlit keypad

<sup>1</sup> FIPS 201-2 compliant option available: The AD Series can be used in applications which require approval by the U.S. Federal Government under HSPD-12 for FIPS 201-2 compliance. Specific components are required, please see the AD 401 data sheet or AD 301 data sheet for complete details.

<sup>2</sup> 75 bit output format default. Configurable to other output formats.

<sup>3</sup> Refer to the Schlage/aptiQ mobile credential compatibility chart for a list of certified devices.

## AD Series exit trim:

AD-300 exit trim is exclusively compatible with Von Duprin® 98/99 and 98/99XP (Rim, Mortise, and SVR. CVC and CVR on Metal doors only), Von Duprin 22/22F (Rim and SVR) and Falcon® 25 (Rim) exit devices made by Allegion™. The proper low current request-to-exit switch (RX-LC or AE) is required.

Part numbers for request-to-exit switch:

- Von Duprin: 050281
- Falcon: 650359

## Benefits of AD Series multi-technology readers:

- Reads multiple brands of both proximity (125 kHz) and smart (13.56 MHz) technologies with single reader
- Allows use of smart/mobile device as credential with Schlage or aptiQ mobile technology<sup>3</sup>
- Allows facility to migrate to more secure credential technologies over time and as budgets permit

## Additional readers

### Smart – iClass compatible

- Smart card reader only
- Reads secure sector of HID iClass, iClass SE, iClass SEOS, iClass Standard Key, and iClass Elite Key; Schlage MIFARE Classic, MIFARE Plus, and MIFARE EV1
- BLE mobile credential not supported

### Magnetic stripe

- Available with choice of insertion or swipe style readers
- Triple track reader (1, 2 or 3), field configurable
- ABA, ISO76XX standard

### Keypad

- Backlit keypad
- 12 button, 3x4 matrix

## Available AD Series reader modules



### Multi-technology

- Proximity
- Smart card
- Mobile

■ KEYPAD



### Multi-technology

- Proximity
- Smart card
- Mobile



### Smart – iClass compatible

- Smart card
- KEYPAD



### Smart – iClass compatible

- Smart card



### Magnetic stripe (insertion)

- KEYPAD



### Magnetic stripe (insertion)



### Magnetic stripe (swipe)

- KEYPAD



### Magnetic stripe (swipe)



### Keypad

# Ordering information

Available through one of our GSA schedule 84 approved distributions; BAA options available

AD-300-CY-70-MG-SPA-626-PD-S123-RH-13-049-10-025-1 3/4

Series	Class	Chassis	Function	Reader	Lever style	Finish	Lever cylinder	Keying type	Handing	Backset and latch	Strike	Door thickness
1	2	3	4	5	6	7	8	9	10	11	12	13

## Selections correspond with the numbers above

Standard options are indicated in bold. See price book for specific configuration options.

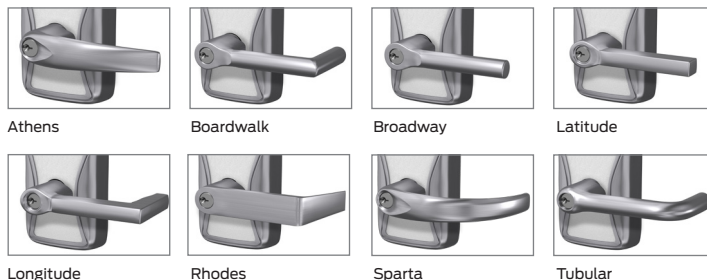
3	Chassis
CY	Cylindrical
MS	Mortise
MD	Mortise deadbolt
993R	Exit trim – Rim/CVC/CVR
993S	Exit trim – SVR
993M	Exit trim – mortise
993DT	Non-functioning dummy trim for exit
4	Function
70	Classroom/storeroom
50	Office
40	Privacy
60	Apartment
Lock function capabilities are determined by users access control system	
5	Reader
KP	Keypad
MG	Magnetic stripe (insertion)
MGK	Magnetic stripe + keypad (insertion)
MS	Magnetic stripe (swipe)
MSK	Magnetic stripe + keypad (swipe)
MT	Multi-technology
	(125kHz and 13.56 MHz)
MTK	Multi-technology + keypad
	(125kHz and 13.56 MHz)
FMK	FIPS 201-2 compliant
	multi-technology + keypad
	(125 kHz and 13.56 MHz)
Si	Smart – iClass compatible
SiK	Smart – iClass compatible
	+ keypad
DT	Dummy trim

6	Lever
ATH	Athens
BRK	Boardwalk
BRW	Broadway
LAT	Latitude
LON	Longitude
RHO	Rhodes
SPA	Sparta
TLR	Tubular
Available with tactile warning options	
7	Finish
<b>626</b>	<b>Satin chrome</b>
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial
8	Lever cylinder type
PD	Schlage 6-pin Conventional key-in-lever cylinder
See price book for other SFIC, FSIC and less cores options available. Compatible with Schlage®, Sargent®, Corbin Russwin, Medeco® and Yale®.	
9	Keyway type
<b>S123</b>	<b>Everest 29</b>
See price book for other available keyway options including master keying	
10	Handing
<b>RH</b>	<b>Right handed</b>
LH	Left handed
Field reversible	

11	Backset and latch or armor front
Cylindrical	
<b>13-049</b>	<b>2 3/4" backset, deadlatch, square corner, 1 1/8" x 2 1/4"</b>
Mortise	
<b>09-663</b>	<b>Armor front, 1 1/4" wide, square corner</b>
See price book for mortise deadbolt and other backset and latch options or armor front options	
12	Strike
Cylindrical	
<b>10-025</b>	<b>1 3/16" lip, ANSI, no box, 1 1/4" x 4 7/8"</b>
Mortise	
<b>10-072</b>	<b>1 3/16" lip, 1 1/4" x 4 7/8" square corner, box</b>
See price book for other available strikes	
13	Door thickness
<b>1 3/4"</b>	
Other thicknesses available between 1 3/8" and 2 3/4"	
See price book for detail	

## Lever styles

Conventional cylinders shown, SFIC and FSIC also available.



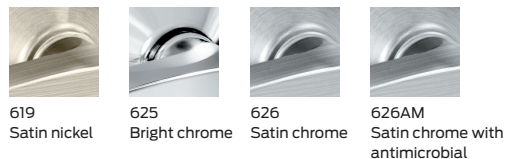
Athens Boardwalk Broadway Latitude Longitude Rhodes Sparta Tubular

## Finishes

Warm tone finishes



Cool tone finishes



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## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

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# AD Series

## Exit trim compatibility



## Overview

The AD Series electronic lock is available in 993 Exit Trim for use on openings that require exit devices for either retrofit or new construction applications. Offline and networked solutions are available. The 993 Exit Trim was designed to suite with AD Series cylindrical and mortise locksets to ensure that the facility remains aesthetically consistent. The AD Series 993 Exit Trim utilizes universal hardware to simplify installation of offline trim to a variety of exit devices, including rim style from Von Duprin, Falcon, Sargent®, Precision™ Corbin Russwin, Dorma®, and Yale®.

### Available Exit Trim styles:

- 993R – Rim, concealed vertical cable or concealed vertical rod (CVC and CVR for metal doors only)
- 993S – Surface vertical rod
- 993M – Mortise

## Features and benefits

- Multiple credential reader options
- Offline and networked communication options
- A wide variety of finishes and lever styles
- Power options that include hardwired (12 VDC or 24 VDC) or batteries (4AA or 8AA)
- Compatible with all Schlage Conventional, FSIC and SFIC formatted cylinders including many competitive OEM cylinders such as, Sargent®, Corbin Russwin, Medeco® and Yale®

## Compatibility

Devices	AD-200/250	AD-300/AD-302 <sup>3</sup> AD-400/AD-402 <sup>3</sup>
Von Duprin 98/99 and 98/99XP rim/SVR/ CVR <sup>1</sup> /CVC <sup>1</sup> /mortise	X	X
Von Duprin 22/22F rim/SVR	X	X
Falcon 25 rim	X	X
Sargent® 80 <sup>2</sup> rim	X	
Precision™ 21 rim (2100 converts to 21 with Precision's BP21 kit)	X	
Yale® 7000 rim	X	
Corbin Russwin 5000 rim	X	
Dorma® 9300 rim	X	

<sup>1</sup> For metal doors only

<sup>2</sup> Narrow design and reversible rim exits not compatible.

<sup>3</sup> The proper low current request to exit switch (RX-LC) is required for AD-300/302 and AD-400/402. Part numbers for request to exit switch:

- Von Duprin: 050281
- Falcon: 650359



## Available AD Series reader modules<sup>2</sup>

- Multi-technology (125 kHz proximity and 13.56 MHz smart card)
- FIPS 201-2 compliant multi-technology (125 kHz proximity and 13.56 MHz smart card)
- Smart – iClass compatible
- Mobile
- Magnetic stripe
- Keypad only
- All credential readers available + keypad

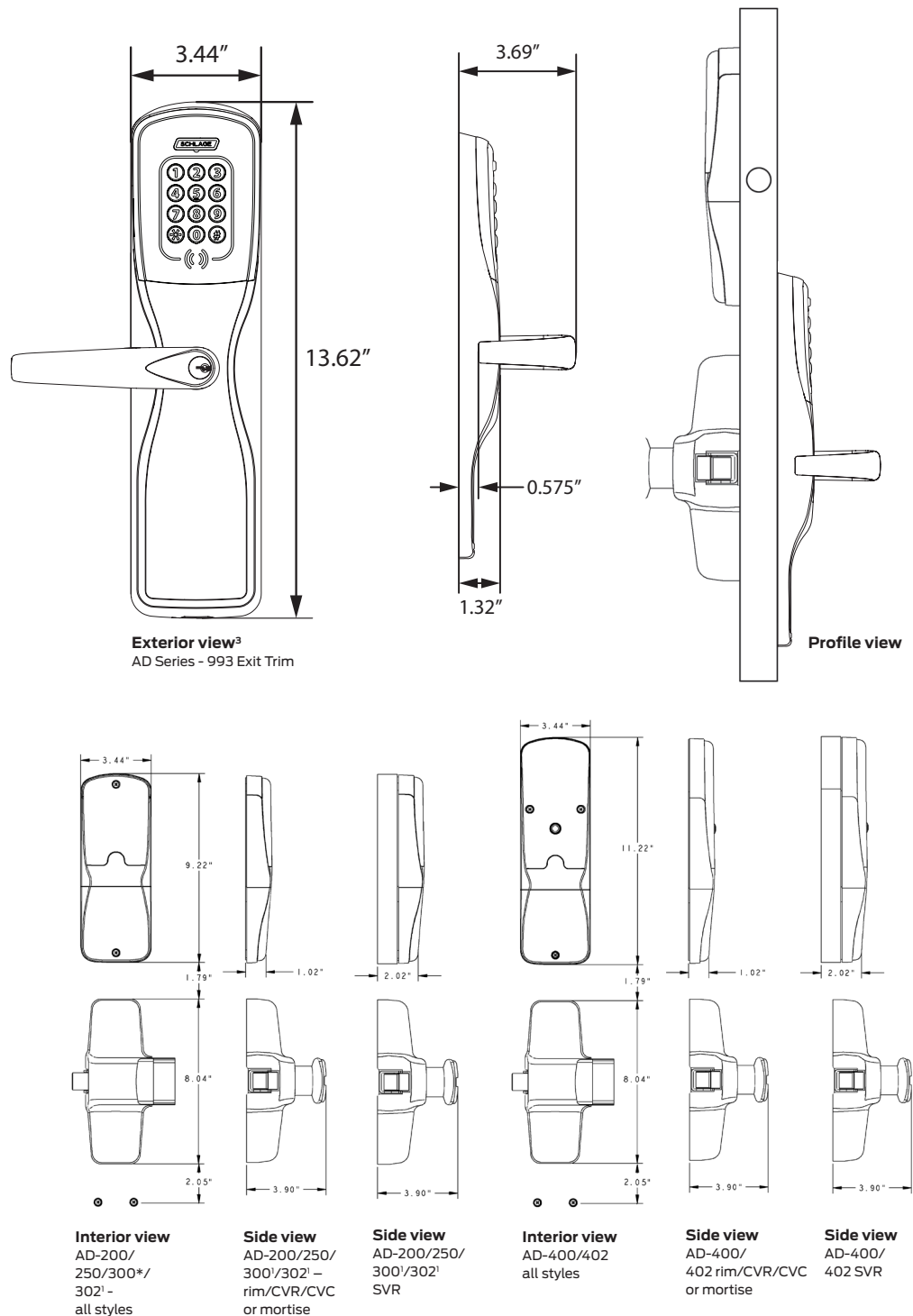
## Available communication options

- AD-400: Networked wireless locks
- AD-402: Networked wireless locks - FIPS 201-2 compliant
- AD-300: Networked hardwired locks
- AD-302: Networked hardwired locks - FIPS 201-2 compliant
- AD-250: Offline, access rights stored on the magnetic stripe credential
- AD-200: Offline, access rights stored on the lock

<sup>1</sup> AD-300/302 includes LED indicator

<sup>2</sup> Unlike other AD Series chassis styles, upgrading reader modules on the 993 Exit Trim requires the exterior escutcheon to be removed from the door

<sup>3</sup> (2) #7 fasteners with decorative washers located 11.88" below bottom edge of lock



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# AD Series and CO Series

Lever and cylinder  
compatibility



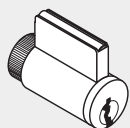
## Overview

AD Series and CO Series electronic locks come standard with the Schlage® 6-pin Everest 29™ S123 keyway and two patented keys. The Everest 29 keyway's patent-protected undercut design with protection through 2029 is available in open and restricted keyway families. Patented restricted keyways, such as the Everest 29 R and T families, deliver a higher level of security by requiring authorization to access blanks for duplication. Improve both administrative and physical security with the application of Primus XP cylinders and gain the option to also employ high security UL 437 cylinders. The new Everest 29 patent enables a key blank that is backwards compatible to legacy Everest keyways allowing Everest 29 keys to work with existing Everest systems aiding the key system migration process.

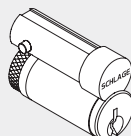
The AD Series and CO Series can also be ordered with other popular Schlage keyways or prepared to receive Falcon® Conventional key-in-lever cylinders or Small Format Interchangeable Core (SFIC) cylinders. Less cylinder options are available to provide compatibility with Conventional, FSIC or SFIC cylinders of other manufacturers including, Sargent®, Corbin Russwin®, Medeco® and Yale®.

## Features and benefits

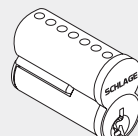
- Multiple credential reader options including keypad, proximity, magnetic stripe, multi-technology<sup>1</sup> and smart card<sup>1</sup>
- Wide variety of finishes and lever styles
- Cylindrical, mortise, mortise deadbolt and exit trim options available
- Compatible with all Schlage Conventional, FSIC and SFIC formatted cylinders including many competitive OEM cylinders
- AD and CO 993 exit trim is compatible with a variety of exit devices including rim style from Von Duprin, Falcon, Sargent®, Precision™, Corbin Russwin®, Dorma® and Yale®



Conventional  
key-in-lever  
PD LD  
LD SAR LD FA7



Full Size  
Interchangeable Core  
RD JD JD SAR  
JD CO6 JD CO7 JD MED  
JD YA6 YD YA7



Small Format  
Interchangeable Core  
GD BD

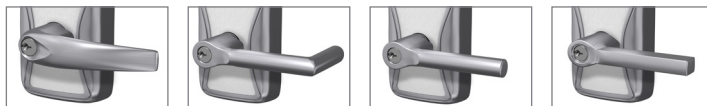
<sup>1</sup> Available on AD Series only.

## Lever and cylinder compatibility

Part number	Description	With cylinder	Pins	Cylinder type			Lever style							
				KIL	FSIC	SFIC	ATH	BRK	BRW	LAT	LON	RHO	SPA	TLR
PD	Schlage® - Everest 29™ S123 (standard)	x	6	x			x	x	x	x	x		x	x
LD	Schlage, Falcon®		6	x			x	x	x	x	x	x	x	x
RD	Schlage - Everest 29 S123 (standard)	x	6		x		x	x	x	x	x	x	x	x
JD	Schlage		6		x		x	x	x	x	x	x	x	x
GD	Schlage Everest 29 R Family Keyways	x	7			x	x	x	x	x	x	x	x	x
BD	Schlage, Falcon, Competitive OEM's		7			x	x	x	x	x	x	x	x	x
LD FA7	Falcon		7	x				x	x	x	x	x	x	
LD SAR	Sargent® (10L+11L)		6	x			x	x	x	x	x	x	x	x
JD SAR	Sargent 6300		6		x		x	x	x	x	x	x	x	x
JD CO6	Corbin® 8000		6		x		x	x	x	x	x	x	x	x
JD CO7	Corbin 8000-7		7		x			x	x	x	x	x	x	x
JD MED	Medeco® 32*0201		6		x			x	x	x	x	x	x	
JD YA6	Yale® 1210 or Medeco 31*0100		6		x		x	x	x	x	x	x	x	x
JD YA7	Yale 1220		7		x			x	x	x	x	x	x	

## Lever styles

Conventional cylinders shown, SFIC and FSIC also available.

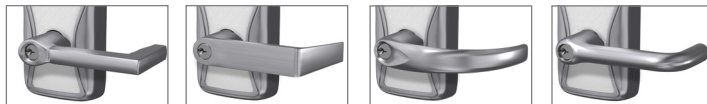


Athens

Boardwalk

Broadway

Latitude



Longitude

Rhodes

Sparta

Tubular

## Finishes

Warm tone finishes



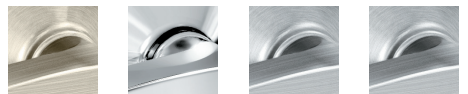
605  
Bright brass

606  
Satin brass

612  
Satin bronze

643e  
Aged bronze

Cool tone finishes



619  
Satin nickel

625  
Bright chrome

626  
Satin chrome

626AM  
Satin chrome with  
antimicrobial

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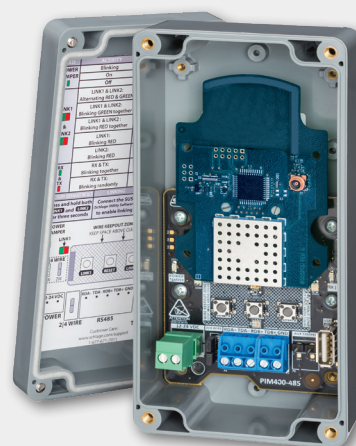


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# PIM400-485

Panel Interface Module  
for RS-485 communication



## Overview

The PIM400-485 seamlessly integrates to select access control panels via RS-485, eliminating the need for reader interface modules. Each PIM400-485 supports up to 16 wireless access devices such as AD-400/401 locks.

### Reliability

Reliable communications result from several technological advances and incorporated features. 900 MHz spread spectrum technology enables high transmission power in a license-free band. Error detection algorithm maintains data integrity on each transmission, and redundant transmissions ensure communication success. Periodic “heartbeat” signals provide supervision and assure reliable RF communications are maintained. Lastly, dynamic channel switching (DCS) can be enabled to overcome harsh RF environments by automatically changing channels to avoid potential interference.

### Security

Used extensively by government and military organizations, spread spectrum technology provides significant security advantages over conventional transmission methods. Wireless access devices utilize spread spectrum transmissions, which are encrypted with AES 128-bit keys, to yield a system that is virtually uncompromisable. In addition, scalability is virtually unlimited as each AD-Series wireless access module has nearly a million addresses to choose from during the linking process.

### Centralized lock/unlock command in 10 seconds or less

Patent-pending Wake-Up on Radio (WOR) feature drives communication from the PIM400 to any or all linked wireless devices in 10 seconds or less. This innovative feature works efficiently in parallel with periodic “heartbeat”, to maintain up to 2 year battery life on wireless devices such as the AD-400/401 locks. Response rate can be field configured down to 1 second with consideration of battery life. When Wake-Up on Radio is used in critical applications, dynamic channel switching should also be enabled.

## Features and benefits

- 900 MHz spread spectrum RF technology for long range, reliable communications
- Automatic linking to remote wireless access points with 10 channel frequencies to select from enables easy commissioning
- AES-128 bit encrypted spread spectrum transmissions
- 5 visual indicators to quickly pinpoint and display status
- Flash memory for easy firmware upgrades
- Certifications: NEMA 1, 4, 4X, 6; UL 294; FCC Part 15; RoHS; Industry Canada (IC)
- Redesigned with smaller footprint

## PIM400-485 specifications

Frequency range	902-928 MHz
Modulation	900 MHz spread spectrum, direct sequence, 10 channels
RF interference avoidance	Optional dynamic channel switching
Transmission/encryption	AES-128 bit key (optional)
Credential verification time	< 1 second <sup>1</sup>
Communication range	Up to 200 ft (61 m) with obstructions Up to 1000 ft (305 m) clear line of sight Up to 2000 ft (609 m) line of sight with high gain antenna on PIM400 Up to 4000 ft (1219 m) line of sight with high gain antennas on PIM400 and WRI400
Visual/audible communications	5 LEDs for status indicators
System interface	RS-485
Power supply	12 VDC or 24 VDC
Voltage range	9.5 VDC to 26 VDC
Max current requirement	Up to 250 mA
Operating temperature	-31° to 151°F (-35° to 66°C)
Operating humidity	0% to 100% non-condensing
Dimensions (H x W x D)	6.3" x 3.2" x 2.2" (16.0 cm x 8.13 cm x 5.59 cm)
Weight	1.25 lb (.56 kg)
Cable specifications	DC power Input: 18AWG, 2 conductor (Belden 8760 or equivalent) up to 1000 ft (305 m) PIM400-485 to ACP: 24AWG, 2 or 4 conductor shielded (Belden 9842, 9841 or equivalent) up to 4000 ft (1219 m)
Data rate	RF: 40 kbps; RS-485: 9.6 kbps
Certifications	NEMA 1, 4, 4X, 6; UL 294; FCC Part 15; Industry Canada (IC); RoHS

## Ordering information

- **PIM400-485** – Panel Interface Module with outdoor enclosure standard. Supports up to 16 access points via RS-485 with select brands of access control panels.

### Optional accessories

- **ANT400-REM-I/O** – Omni-directional remote indoor/ outdoor antenna module. Requires available grounding kit (MGB+MCA5) for outdoor installations
- **ANT400-REM-I/O+6dB** – Directional, flat panel, remote indoor/outdoor antenna with 6dB of gain. Requires available grounding kit (MGB+MCA5) for outdoor installations
- **MGB+MCA5** – Grounding kit for outdoor installations
- **ANT400-REM-CEILING** – Omni-directional ceiling mount indoor remote antenna
- **ANT400-REM-HALL** – Bi-directional indoor hall application remote antenna
- **HH Kit-USB** – Handheld device with SUS installed and HH-USB cable
- **593PI-12DC** – 12 VDC power supply

<sup>1</sup> Dependant on latency time of access control panel.

## Additional features

### Reliable communications

900 MHz band enables longer transmission ranges. In general, signal propagation with longer wavelengths travel a greater distance and penetrate through, and around objects better than signals with shorter wavelengths.

### Online communications (heartbeat)

Regular communications between the AD-Series wireless access module and PIM400 monitor transmission presence and integrity. Online communications enable the PIM400 to download information or instructions such as unlock and relock.

### Auto addressing (linking)

One of the final steps in the installation process is called "linking". Linking ties a specific wireless access module to a selected PIM400 and assigns a unique address. There are over 65,000 unique addresses available per channel, providing nearly a million combinations for virtually unlimited scalability.

### Assured communications

A Packet-Error-Rate-Test (PERT) is performed during linking at reduced power levels to ensure reliable communication during operation.

### Encoded transmissions

Each RF transmission is encrypted with AES-128 bit keys to provide virtually uncompromisable security.

### Tamper

The PIM400 cover is monitored by an optical tamper switch.

### Visual indications

- Power on
- Microprocessor running
- Linking status
- PIM receiving RF data
- PIM transmitting RF data
- PIM receiving RS-485 data
- PIM transmitting RS-485 data
- PIM firmware version
- PIM tamper status

### Access point status available through RS-485 connection

- Card and keypad data
- Door position
- Loss of RF communication
- Request-to-exit
- Request-to-enter
- Low battery
- PIM tamper
- Mechanical key override
- Deadbolt position
- Interior cover tamper guard
- Lock/unlock status
- Interior push button

### Configurable items from PIM400-485

- Wake-Up on Radio (WOR)
- Heartbeat frequency
- Relock parameters
- Card data format conversion
- Extended unlock
- Fail safe/fail secure/fail as-is
- Door held pre-alarm
- Cache memory parameters
- Dynamic channel switching (DCS)
- Reader configuration
- Keypad configuration
- Inside pushbutton configuration
- User interface configuration

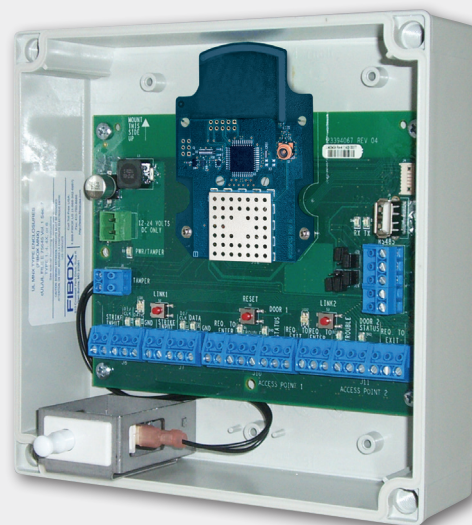
## About Allegion

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# PIM400-TD2

Panel Interface Module  
Wiegand or Clock & Data  
communication



## Overview

The PIM400-TD2 seamlessly integrates to virtually any access control panel and their reader interface modules via Wiegand or Clock & Data protocols. Each PIM400-TD2 supports up to two wireless access devices such as AD-400/401 Series locks.

### Reliability

Reliable communications result from several technological advances and incorporated features. 900 MHz spread spectrum technology enables high transmission power in a license-free band. Error detection algorithm maintains data integrity on each transmission and redundant transmissions ensure communication success. Periodic "heartbeat" signals provide supervision and assure reliable RF communications are maintained. Lastly, dynamic channel switching (DCS) can be enabled to overcome harsh RF environments by automatically changing channels to avoid potential interference.

### Security

Used extensively by government and military organizations, spread spectrum technology provides significant security advantages over conventional transmission methods. Wireless access devices utilize spread spectrum transmissions, which are encrypted with AES-128 bit keys, to yield a system that is virtually uncompromisable. In addition, scalability is virtually unlimited as each AD Series wireless access module has nearly a million addresses to choose from during the linking process.

### Centralized lock/unlock command in 10 seconds or less

Patent-pending Wake-Up on Radio (WOR) feature drives communication from the PIM400 to any or all linked wireless devices in 10 seconds or less. This innovative feature works efficiently in parallel with periodic "heartbeat" to maintain up to 2 year battery life on wireless devices such as the AD-400/401 locks. Response rate can be field configured down to 1 second with consideration of battery life. When Wake-Up on Radio is used in critical applications, dynamic channel switching should also be enabled.

## Features and benefits

- 900 MHz spread spectrum RF technology for long range, reliable communications
- Supports up to two AD Series wireless devices
- Automatic linking to remote wireless access points with 10 channel frequencies to select from enables easy commissioning
- AES-128 bit encrypted spread spectrum transmissions
- 13 visual indicators to quickly verify operation and troubleshoot
- Flash memory for easy software upgrades
- Certifications: NEMA 1, 4, 4X, 6; UL 294; FCC Part 15; RoHS; Industry Canada (IC)



## PIM400-TD2 specifications

Frequency range	902-928 MHz
Modulation	900 MHz spread spectrum, direct sequence, 10 channels
RF interference avoidance	Optional dynamic channel switching
Transmission/encryption	AES-128 bit key (optional)
Credential verification time	< 1 second <sup>1</sup>
Communication range	Up to 200 ft (61 m) with obstructions Up to 1000 ft (305 m) clear line of sight Up to 2000 ft (609 m) line of sight with high gain antenna on PIM400 Up to 4000 ft (1219 m) line of sight with high gain antennas on PIM400 and WRI400
Visual/audible communications	13 LEDs for status indicators
System interface	Wiegand (data1/data0) or magnetic stripe (Clock & Data)
Power supply	12 VDC or 24 VDC
Voltage range	9.5 VDC to 26 VDC
Max current requirement	Up to 250 mA
Operating temperature	-31° to 151°F (-35° to 66°C)
Operating humidity	0 - 100% non-condensing
Dimensions (H x W x D)	7.1" x 7.1" x 3.0" (18.0 cm x 18.0 cm x 7.6 cm)
Weight	1.25 lb (.56 kg)
Cable specifications	DC power Input: 18AWG, 2 conductor (Belden 8760 or equivalent) up to 1000 ft (303 m) PIM400-TD2 to ACP: 22AWG, 8 conductor shielded (Alpha 1298C or equivalent) up to 500 ft (152 m)
Data rate	RF: 40 kbps
Certifications	NEMA 1, 4, 4X, 6; UL 294; FCC Part 15; RoHS; Industry Canada (IC)

## Ordering information

- **PIM400-TD2** – Panel Interface Module with outdoor enclosure standard. Supports up to two access points via Wiegand or Clock & Data with virtually any access control panel.

### Optional accessories

- **ANT400-REM-I/O** – Omni-directional remote indoor/outdoor antenna module. Requires available grounding kit (MGB+MCA5) for outdoor installations
- **ANT400-REM-I/O+6dB** – Directional, flat panel, remote indoor/outdoor antenna with 6dB of gain. Requires available grounding kit (MGB+MCA5) for outdoor installations
- **MGB+MCA5** – Grounding kit for outdoor installations
- **ANT400-REM-CEILING** – Omni-directional ceiling mount indoor remote antenna
- **ANT400-REM-HALL** – Bi-directional indoor hall application remote antenna
- **HHD Kit-USB** – Handheld device with SUS installed and HH-USB cable
- **593PI-12DC** – 12 VDC power supply

Available through one of our GSA schedule 84 approved distributors

<sup>1</sup> Dependant on latency time of access control panel.

## Additional features

### Reliable communications

900 MHz band enables longer transmission ranges. In general, signal propagation with longer wavelengths travel a greater distance and penetrate through, and around objects better than signals with shorter wavelengths.

### Online communications (heartbeat)

Regular communications between the AD Series wireless access module and PIM400 monitor transmission presence and integrity. Online communications enable the PIM400 to download information or instructions such as unlock and relock.

### Auto addressing (linking)

One of the final steps in the installation process is called "linking". Linking ties a specific wireless access module to a selected PIM400 and assigns a unique address. There are over 65,000 unique addresses available per channel, providing nearly a million combinations for virtually unlimited scalability.

### Assured communications

A packet-error-rate-test (PERT) is performed during linking at reduced power levels to ensure reliable communication during operation.

### Encoded transmissions

Each RF transmission is encrypted with AES-128 bit keys to provide virtually uncompromisable security.

### Tamper

The PIM400 cover is monitored by a tamper switch.

### Visual LED indications

- Power on
- Microprocessor running
- Linking status to WAPM
- PIM transmitting RF data
- PIM receiving RF data
- PIM receiving data
- PIM transmitting data
- Door position
- PIM tamper status
- PIM firmware version
- Wiegand and Clock & Data status 1 & 2
- Door status 1 & 2
- Trouble 1 & 2

### Standard open collector contacts

- Configurable for normally open or normally closed
- Door position
- Request-to-exit
- Request-to-enter
- Trouble

### Optional relay board (RLBD) to achieve dry contact

- Configurable for normally open or normally closed
- Door position
- Request-to-exit
- Request-to-enter
- Trouble

### Access point status available through PIM400-TD2

- Wiegand or magnetic stripe card data
- Door position
- Request-to-exit
- Request-to-enter (optional)
- Trouble
  - Loss of RF communication
  - Low battery
  - PIM tamper
  - Reader tamper

### Configurable items from PIM400-TD2

- Wake-Up on Radio (WOR)
- Heartbeat frequency
- Relock parameters
- Card data format conversion
- Extended unlock
- Fail safe/fail secure/fail as-is
- Door held pre-alarm
- Cache memory parameters
- Dynamic channel switching (DCS)
- Reader configuration
- Keypad configuration
- User interface configuration

## About Allegion

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# PIM400-1501

16 door intelligent controller  
for AD Series wireless  
devices; powered by Mercury



MERCURY  
SECURITY

## Overview

The Schlage intelligent controller powered by Mercury is designed to provide a complete and cost effective IP addressable access control solution for up to 16 wireless AD Series devices. By combining the strength of the AD Series wireless PIM400 with customized functionality of the EPI501 intelligent controller from Mercury, this single device provides a compact solution that simplifies installation and cost of implementation.

The PIM400-1501 can extend a facility's access control to remote locations and can be centrally managed by an IP network connection. By having an IP connection you can easily hook on to the existing network without the need for additional wiring requirements such as RS232 or RS485 cables. By leveraging the full portfolio of Schlage Wireless devices including the AD-400 locksets, WPR400 portable readers, and WRI400 reader interfaces there is the ability to support a broad range of applications including traditional openings that may require electric strikes or wall mounted readers.

The PIM400-1501 is pre-wired with external RJ-45 and USB connections. To further simplify installation, the device can be Powered over Ethernet (PoE) or receive 12VDC supply.

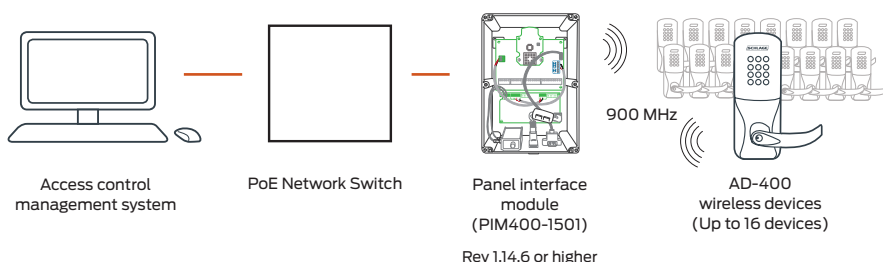
Once configured, the PIM400-1501 functions independently of the host in the event network connectivity is lost. Thus, the PIM400-1501 can continue to manage access control to up to 16 wireless devices even when the network is disconnected. The intelligence of the PIM400-1501 extends beyond just its capacity for 240,000 cardholders and 50,000 audit events to include the ability to manage elaborate interdependencies among the devices.

## Features and benefits

- Standard IP addressable intelligent controller for up to 16 AD Series wireless devices.
- Decentralized system intelligence capable of managing up to 240,000 cardholders and 50,000 transactions in memory if temporarily disconnected from network
- PoE compliant to IEEE 802.3af
- Optional 12VDC external power supply to achieve UL294 Listing
- 900 MHz communication between PIM400-1501 and AD Series wireless devices for secure, AES-128 bit encrypted transmission
- Patent-pending wireless lockdown/unlock feature (10 seconds or less) preserves up to 2 year battery life in wireless device
- External RJ-45 and USB connectors for simplified installation and use
- Capable of managing a combination of AD-400, WPR400, and WRI400 devices for applications ranging from traditional doors to elevators and parking gates

## PIM400-1501 16 door intelligent controller

Modulation / encryption	900 MHz spread spectrum, direct sequence, 10 channels, AES-128 bit key
Frequency range	902-928 MHz
Credential verification time <sup>1</sup>	< 1 second <sup>1</sup>
Communication range	<ul style="list-style-type: none"> <li>Up to 200 ft (61 m) indoor range, with normal building obstructions</li> <li>Up to 1000 ft (305 m) clear line of sight</li> <li>Up to 2000 ft (609 m) line of sight with high gain antenna on PIM400</li> <li>Up to 4000 ft (1219 m) line of sight with high gain antennas on PIM400-1501 and WRI400.</li> </ul>
RF interference avoidance	Configurable Dynamic Channel Switching
Operating temperature	32° F to 151° F, 0° C to 66° C
Humidity	10% to 95% relative humidity non-condensing
Power input	PoE, 12.95W compliant to IEEE 802.3af or 12VDC +- 10% 400mA max power supply
Communication to host	10 Base-T / 100Base-TX
Intelligent controller memory	240,000 cardholders, 50,000 transaction buffer 32 Access levels per cardholder Activation/deactivation dates
Dimensions	10.43" X 7.28" X 3.79" (26.49cm X 18.49 cm X 9.63 cm)
Weight	2.8 lbs.
Certifications	FCC Part 15, Industry Canada(IC), RoHS UL294 Listed <sup>2</sup> when connected to UL294 power supply
Optional accessories	Handheld Device (HHD), AD Series wireless locks (AD-400), Wireless Portable Readers (WPR400), Wireless Reader Interfaces (WRI400)



<sup>1</sup> Lock requires less than 100 msec, response time does not include latency time of ACP

<sup>2</sup> Confirm with your access control software provider

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## Optional accessories

- **ANT400-REM-I/O** – Omni-directional remote indoor/ outdoor antenna module. Requires available grounding kit (MGB+MCA5) for outdoor installations
- **ANT400-REM-I/O+6dB** – Directional, flat panel, remote indoor/outdoor antenna with 6dB of gain. Requires available grounding kit (MGB+MCA5) for outdoor installations
- **MGB+MCA5** – Grounding kit for outdoor installations
- **ANT400-REM-CEILING** – Omni-directional ceiling mount indoor remote antenna
- **ANT400-REM-HALL** – Bi-directional indoor hall application remote antenna
- **HHD Kit-USB** – Handheld device with SUS installed and HH-USB cable
- **WPR400** – Wireless Portable Reader
- **WRI400** – Wireless Reader Interface
- **REPTR400** – Wireless Repeater



PIM400-1501 has RJ-45 and USB external connectors to make installation easy.

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# TK400

## AD Series Wireless Test Kit



### Overview

The Schlage AD Series TK400 Wireless Test Kit can help you evaluate system design on new AD-400 wireless networked systems prior to installation. The TK400 can also be used to diagnose communication strength on existing AD-400 wireless applications. AD-400 locks and devices including the Wireless Reader Interface (WRI400), and Wireless Portable Reader (WPR400) communicate via 900 MHz frequency to the Panel Interface Module (PIM400); the PIM400 is required for communication between the AD-400 devices and the access control panel.

The TK400 Wireless Test Kit contains a Wireless Portable Signal Tester (WPR400-DT), a Panel Interface Module (PIM400-TD2), a PIM400 power supply, 8 AA alkaline batteries, and a convenient carrying case. The WPR400-DT operates on batteries, making it convenient and easy to maintain on job sites.

The Wireless Portable Signal Tester (WPR400-DT) is used to communicate to the PIM400 as an access control module. LED lights provide intuitive feedback about the quality of the signal.

The communication range of the AD-400 to the PIM400 is up to 200 feet with normal building construction and up to 1000 feet with clear line of sight. The TK400 can be used to determine the proper location of each Panel Interface Module (PIM) to optimize system design. When installed properly, an AD-400 wireless solution is an extremely reliable and cost effective alternative to a hardwired networked system.

### Features and benefits

- Allows you to test the range of 900 MHz signals between AD-400 devices and PIM400 to ensure proper location prior to installation of complete system.
- Can be used to test existing installations for signal strength
- LED light feedback for signal strength communication; green for strong connection, red for weak connection
- Kit comes complete with:
  - Wireless portable signal tester (WPR400-DT)
  - Panel Interface Module (PIM400-TD2)
  - Power supply for PIM400-TD2
  - 8 AA off-the-shelf batteries
  - Carrying case
- WPR400-DT certifications: FCC Part 15, Industry Canada (IC), RoHS
- PIM400-TD2 certifications: NEMA 1, 4, 4X, 6; UL 294, FCC Part 15, Industry Canada (IC), RoHS

## Wireless portable signal tester

Frequency range	902-928 MHz
Modulation	900 MHz spread spectrum, direct sequence, 10 channels
Communication	Up to 200 ft with obstructions (normal building); up to 1000 ft clear line of sight
Operating temperature	0°C (32°F) to 49°C (120°F)
Humidity	0% to 100% non-condensing
Battery type	8AA alkaline batteries
Dimensions (H x W x D)	2.375" x 5.0" x 6.25" (6.03 cm x 12.7 cm x 15.88 cm)
Certifications	<ul style="list-style-type: none"><li>FCC Part 15</li><li>Industry Canada (IC)</li><li>RoHS</li></ul>

### Visual LED indications

- Wireless signal quality
- Low battery

## PIM400-TD2

Frequency range	902-928 MHz
Modulation	900 MHz spread spectrum, direct sequence, 10 channels
Communication	Up to 200 ft with obstructions (normal building); up to 1000 ft clear line of sight
Operating temperature	-31° to 151°F (-35° to 66°C)
Humidity	0% to 100% condensing
Power supply	12 VDC or 24VDC (12 VDC power supply included)
Dimensions (H x W x D)	7.1" x 7.1" x 3.0" (18.0 cm x 18.0 cm x 7.6 cm)
Weight	1.25 lb (.56 kg)
Certifications	<ul style="list-style-type: none"><li>NEMA 1, 4, 4X, 6</li><li>UL 294</li><li>FCC Part 15</li><li>Industry Canada (IC)</li><li>RoHS</li></ul>

### Visual LED indications

- Power on
- Linking status to AD-400 devices
- PIM transmitting/receiving RF data

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# WPR400

## AD Series Wireless Portable Reader



## Overview

The Schlage® AD Series Wireless Portable Reader (WPR400) was designed to extend a facility's access control to remote locations, at a moment's notice.

The WPR400 is a portable device that utilizes the same credential reader module as an AD Series electronic lock. The WPR400 can be held by hand or placed in a convenient temporary location to allow for credential verification. Whether it is at a temporary check point or bus load registration, the WPR400 will provide simple, intuitive feedback to the user if the credential being presented is valid or invalid via real time connectivity to the access control system.

The WPR400, as well as other AD-400 locks and devices, communicate via 900 MHz frequency to the Panel Interface Module (PIM400); the PIM400 is required for communication between the AD-400 devices and the access control panel.

The WPR400 was designed to be intuitive to use and easy to set up, which is critical in situations where there is a need for remote credential verification. At power-on and within range, the WPR400 is ready to accept its first credential within moments of powering up and reconnecting to the previously paired PIM400. After the credential has been authenticated by the access control system, the WPR400 provides intuitive LED light feedback.

The WPR400 also has the ability to be configured to cache mode. When enabled, the WPR400 keeps a local database of valid access grants. Upon moving the WPR400 to an offline location away from the PIM400, credentials can be verified for the last 1000 valid users.

Finally, the WPR400 can be manually configured to operate as a wireless portable tester. In Wireless Test Mode, the device can be used to evaluate the location of PIM400s and AD-400 devices within a specific environment, or the existing reader module can remain installed on the WPR400.

## Features and benefits

- Fully compatible with Schlage AD Series credential reader modules & Panel Interface Modules
- Reader options include multi-technology (reads both 13.56 MHz smart card and 125 kHz proximity), iClass compatible, magnetic stripe and keypad
- Card reader options available with keypad for multi-factor authentication
- Cache mode option for offline applications
- Field configurable to work as a wireless portable signal tester
- Configured with Schlage hand held device (HHD)
- LED indicators communicate valid (green) and invalid (red) credential status
- Communicates to access control system via PIM400
- Allows use of smart/mobile device as credential with Schlage and aptiQ® mobile (multi-technology reader only)<sup>1</sup>
- FCC Part 15, Industry Canada (IC), RoHS
- Comes with 8 AA off-the-shelf batteries

<sup>1</sup> Refer to the Schlage/aptiQ mobile credential compatibility chart for a list of certified devices.



## Wireless portable reader specifications

Modulation / encryption	900 MHz spread spectrum, direct sequence, 10 channels AES-128 bit key
Frequency range	902-928 MHz
Credential verification time <sup>1</sup>	< 1 second <sup>1</sup>
Communication range	Up to 200 ft with obstructions (normal building); up to 1000 ft clear line of sight
RF interference avoidance	Configurable dynamic channel switching
Data rate	40 kbps
Operating temperature	0°C (32°F) to 49°C (120°F)
Humidity	0% to 100% non-condensing
Battery type	8AA alkaline batteries
Battery life	Up to 2 years at 40,000 card reads or PIN codes per year
Dimensions (H x W x D, less reader)	3.375" x 5.0" x 6.25" (8.57 cm x 12.7 cm 15.88 cm)
Weight (less reader)	1.5 lb (0.68 kg)
Certifications	FCC Part 15, Industry Canada (IC), RoHS
Additional accessories	Panel Interface Module (PIM400), handheld device (HHD)




### Included with WPR400

- AD Series credential reader module specified at ordering

### Modes of operation

- Reader mode (default)
- Wireless test mode (field configurable)

### Available AD Series reader modules<sup>2</sup>

								
<b>Multi-technology</b> <ul style="list-style-type: none"> <li>Proximity</li> <li>Smart card</li> <li>Mobile</li> </ul>	<b>Multi-technology</b> <ul style="list-style-type: none"> <li>Proximity</li> <li>Smart card</li> <li>Mobile</li> </ul>	<b>Smart – iClass compatible</b> <ul style="list-style-type: none"> <li>Smart card</li> </ul>	<b>Smart – iClass compatible</b> <ul style="list-style-type: none"> <li>Smart card</li> </ul>	<b>Magnetic stripe (insertion)</b> <ul style="list-style-type: none"> <li>KEYPAD</li> </ul>	<b>Magnetic stripe (insertion)</b> <ul style="list-style-type: none"> <li>KEYPAD</li> </ul>	<b>Magnetic stripe (swipe)</b> <ul style="list-style-type: none"> <li>KEYPAD</li> </ul>	<b>Magnetic stripe (swipe)</b> <ul style="list-style-type: none"> <li>KEYPAD</li> </ul>	<b>Keypad</b>

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<sup>1</sup> WPR requires less than 100 msec, response time does not include latency time of ACP

<sup>2</sup> Dummy trim reader module also available. Please see AD Series data sheets for more details on credential reader modules.

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## Reliability

Secure and reliable wireless communication with the Panel Interface Module (PIM400) is accomplished using 900 MHz frequency. 900 MHz band enables longer transmission ranges because signal propagation with longer wavelengths travels a greater distance and better penetrates typical building construction – allowing for simplified system design.

## Panel Interface Module (PIM400)

The PIM400 (sold separately) is required for communication between the WPR400/402 and the access control panel, and can support up to 16 AD-400 devices depending on your access control system.

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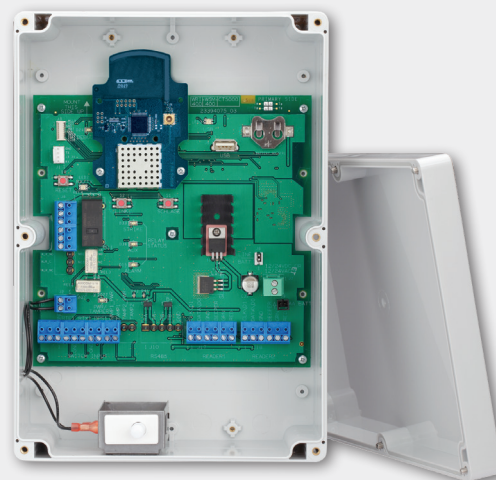


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# WRI400

## Wireless Reader Interface



### Overview

The WRI400 is a networked access point controller designed to provide wireless connectivity to traditional electronic access control components including credential readers, door position and request-to-exit switches.

The WRI400 Wireless Reader Interface provides local termination points for your wall or mullion mounted reader, door position switch, request-to-exit (RX) and reader tamper. The WRI400 communicates data via 900 MHz back to either a PIM400-485 or PIM400-TD2 which are hardwired to the Access Control Panel (ACP) where all access and specific reporting decisions are made and recorded.

The WRI400 is designed to be compatible with most of the popular Wiegand or Clock & Data format readers that exist in the market today. Utilizing the two form C relays on board expands the capability at the door to control electronic locking hardware as well as other devices such as automatic operators.

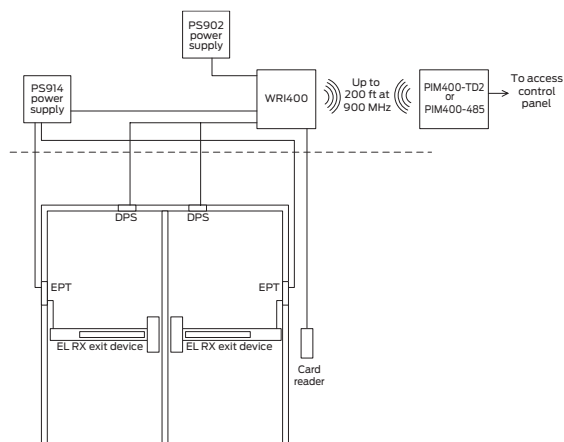
The WRI400 allows you to extend the reach of your access control system to openings that are hard to reach with network wiring. Ideal applications include remote doors, historic buildings, gates and elevators. Since the WRI400 is built on an open architecture platform it is designed for seamless integration with most access control systems.

### Features and benefits

- Visual LED indications – WRI400 cover is monitored by a tamper switch
- Encryption – Each RF transmission is encrypted with AES-128 bit keys
- Reader interfaces support:
  - Wiegand (data1/data0) up to 255 bits
  - Magnetic stripe (Clock & Data) up to 255 bits
- Form C relay outputs:
  - Strike relay
  - Auxiliary output relay
- Signal inputs:
  - Request-to-enter
  - Request-to-exit
  - Door position switch
  - Reader tamper 1
  - Reader tamper 2
- Certification: NEMA 1, 4, 4X, 6; UL 294, FCC Part 15; Industry Canada (IC), RoHS

## WRI400 specifications

Frequency range		902-928 MHz
Modulation		900 MHz spread spectrum, direct sequence, 10 channels
RF interference avoidance		Optional dynamic channel switching
Transmission/encryption		AES-128 bit key (optional)
Data rate		RF: 40 kbps
Credential verification time*		< 1 second <sup>1</sup>
Communication range		Up to 200 ft (61 m) normal building construction Up to 1000 ft (305 m) clear line of sight (See ANT400-REM data sheet for increasing distance)
Power supply requirements		12 VDC or 24 VDC; 500 mA maximum current
Connector cable specifications	DC power input	18AWG, 2 conductor (Belden 8760 or equivalent) up to 1000 ft (305 m)
	Credential readers (x2)	Data signals: 22AWG, 6 conductor (Alpha 1296C or equivalent) up to 500 feet (152 meters) Reader tamper signals: 18AWG, twisted pair shielded (Beldon 8760 or equivalent) up to up to 500 feet (152 meters)
	Strike/aux relay outputs	18AWG, 2 conductor (Belden 8760 or equivalent) up to 2000 feet (610 meters)
	Request-to-enter and -exit inputs	18AWG, 2 conductor (Belden 8760 or equivalent) up to 2000 feet (610 meters)
Relay output tolerances	Strike output relay	Form C relay; 6 amps at 24 VDC or 6 amps at 120 VAC or 3 amps at 240 VAC
	Auxiliary output relay	Form C relay; 2 amps at 24 VDC or 0.5 amps at 120 VAC
Operating temperature		-31°F (-35°C) to 151°F (66°C)
Operating humidity		0 - 100% condensing
Dimensions (H x W x D)		10.43" x 7.28" x 3.79" (26.49 cm x 18.49 cm x 9.63 cm)
Certifications		NEMA 1, 4, 4X, 6; UL 294; FCC Part 15; Industry Canada (IC): RoHS



### Remote door application

- For hard to reach openings, the WRI400 can extend your access control system saving you time and money by reducing wiring to the door from the panel.

<sup>1</sup> WRI requires less than 100 msec, response time does not include latency time of ACP.

## Additional features

### Reliable communications

900 MHz band enables longer transmission ranges. In general, signal propagation with longer wavelengths travel a greater distance and penetrate through, and around objects better than signals with shorter wavelengths.

### Online communications (heartbeat)

Regular communications between the WRI400 and PIM400 monitor transmission presence and integrity. Online communications enable the WRI400 to download information or instructions such as unlock and relink.

## Optional accessories

- ANT400-REM-I/O** – Omni-directional remote indoor/ outdoor antenna module. Requires available grounding kit (MGB+MCA5) for outdoor installations
- ANT400-REM-I/O+6DB** – Directional, flat panel, remote indoor/outdoor antenna with 6DB of gain. Requires available grounding kit (MGB+MCA5) for outdoor installations
- MGB+MCA5** – Grounding kit for outdoor installations
- ANT400-REM-CEILING** – Omni-directional ceiling mount indoor remote antenna
- ANT400-REM-HALL** – Bi-directional indoor hall application remote antenna
- HH Kit-USB** – Handheld device with SUS installed and HH-USB cable
- 593PI-12DC** – 12 VDC power supply

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# GCK400 & ECK400

Wireless Gate Control Kits  
and Elevator Control Kits



## Overview

The Gate Control Kit (GCK400) and the Elevator Control Kit (ECK400) complement and expand the AD Series platform by bringing wireless access control to applications that are difficult to reach with a traditional wired approach.

The GCK400 and the ECK400 are kits comprised of the Wireless Reader Interface (WRI400), the Panel Interface Module (PIM400-TD2), a Remote Antenna (ANT-REM I/O) and a power supply (593PI-12DC). The GCK400 kit also includes an antenna grounding kit (MGB+MCA5).

The Wireless Reader Interface (WRI400) is compatible with most popular Wiegand or Clock & Data format credential readers on the market today. The WRI400 communicates via 900MHz to the PIM400-TD2 within a range of up to 1000 feet with a clear line of sight. The PIM400-TD2 is hardwired to the access control panel where decisions are validated and recorded.

The GCK400 kit can eliminate the need for trenching in gate applications, driving a significant reduction of installation time and cost. The gate kit is ideal for parking lots, airports, military bases and garages. Roadways, parking lots and landscape are left intact since the need to run wires underground is eliminated.

The ECK400 eliminate the need for traveling cables to elevator applications simplifying installation. Access control can be applied to elevators at a much faster rate, reducing downtime and disruption within the facility.

## Features and benefits

- Real time access control
- Reduced installation time
- Eliminates trenching of communication lines
- Eliminates traveling cables in elevators
- Two paralleled reader inputs
- Supports all Wiegand (data1/data0) and magnetic stripe (clock/data) reader technologies

## GCK400/ECK400 Kit contents

Qty	Part Number	
1	ANT400-REM-I/O	Omni-directional, flat panel, remote indoor/outdoor antenna with adjustable mount
1	WRI400	Wireless reader interface connects to a reader and transmits signal to PIM
1	PIM400-TD2	Panel interface module receives information through antenna and sends to access control provider panel for confirmation
1	593PI-12	Wall plug-in power supply converts 120v input to 12 VDC output supports WRI-400
1	MGB+MCA5 (GCK400 only)	Antenna grounding kit

## PIM400-TD2 specifications

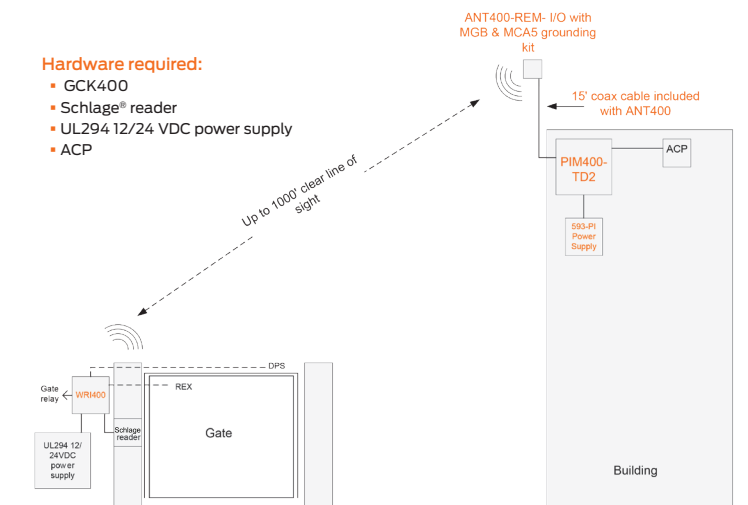
Transmission / encryption	AES - 128 bit (optional)
Communication range	Up to 200 ft (61 m) with obstructions Up to 1000 ft (305 m) clear line of sight Up to 2000 ft (609 m) line of sight with high gain antenna on PIM400 Up to 4000 ft (1219 m) line of sight with high gain antennas on PIM400 and WRI400
Dimensions (H x W x D)	10.43" x 7.28" x 3.79" (26.49 cm x 18.49 cm x 9.63 cm)

## WRI400 specification

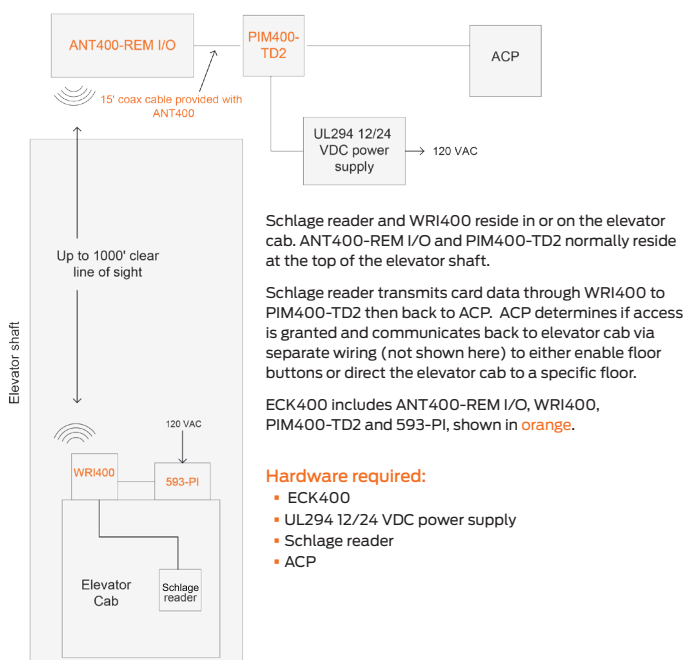
Frequency range	902-928 MHz
Modulation	900 MHz spread spectrum, direct sequence, 10 channels
RF interference avoidance	Optional dynamic channel switching
Data rate	RF: 40 kbps
Power supply requirements	12 VDC or 24 VDC
Dimensions (H x W x D)	10.43" x 7.28" x 3.79" (26.49 cm x 18.49 cm x 9.63 cm)
Operating temperature	- 31°F (-35°C) to 151°F (66°C)
Strike output relay	Form C relay: 6 amps at 24 VDC or 6 amps at 120 VAC or 3 amps at 240 VAC
Auxiliary output relay	Form C relay: 2 amps at 24 VDC or 0.5 amps at 120 VAC
Dimensions (overall)	8.7 in x 6.94 in x 4.5 in (220 mm x 176 mm x 140 mm)
Weight	4.2 oz (120 grams)

### Hardware required:

- GCK400
- Schlage® reader
- UL294 12/24 VDC power supply
- ACP



GCK includes WRI400, PIM400-TD2, ANT-REM I/O, MGB + MCA5 and 593-PI and are shown in orange. Items not included are in black. DPS and REX are optional.



### Hardware required:

- ECK400
- UL294 12/24 VDC power supply
- Schlage reader
- ACP

## Ordering information

- **GCK400** - Wireless Gate Control Kit
- **ECK400** - Wireless Elevator Control Kit

### Optional accessories

- **ANT400 Hall** - Bi-directional indoor antenna ceiling mount
- **ANT400-REM-I/O + 6 DB** - High gain, directional, flat panel remote indoor/outdoor antenna with 6 DB gain.
- **MGB + MCA5** - Antenna grounding kit for outdoor applications

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# ANT400-REM

AD Series remote antennas  
for wireless system



Note: Images not to scale

## Overview

The Schlage ANT400-REM optional remote antennas are designed for use with the AD-400 Series devices. They increase installation flexibility of wireless products, extend the range of wireless communication in certain directions and expand the range of applications of AD Series solution.

A remote antenna is used to improve signal communication strength for wireless communications through an obstruction. A typical application would be when a remote device down a hallway requires a few extra feet of signal strength to reach the PIM400, which is sometimes located around a corner or behind a wire mesh or thick brick construction material.

When increased wireless communication range is required, the ANT400-REM-I/O+6dB model can up to double the range in the line of sight that it is aimed. This “gain antenna” increases the signal strength by focusing the energy in a single direction instead of broadcasting in all directions.

AD Series remote antennas are important components to environments with limited installation flexibility. The connected PIM400 can be up to 15 feet away from the remote antenna via the included coaxial cable. The outdoor rated antennas create new applications that allow a PIM400 to communicate to external remote access points such as gates or remote buildings without the need to trench cables.

## Features and benefits

- Use with PIM400 and WRI400
- Increase installation flexibility
- Optimize installation location
- Extend communication range with high-gain antenna
- Directional, bi-directional or omni-directional
- Indoor and outdoor options

### Included In:

- ECK400 wireless elevator kit
- GCK400 wireless gate control kit



## Remote antenna models

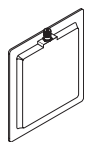
Model			Description
ANT400-REM-I/O	Type	Quasi omni-directional, unity gain	<b>Intended use:</b> an omni-directional flat-panel antenna for use with indoor or outdoor applications. To be mounted vertically on a wall or post.
	Communication range extension	15 ft due to cable length	
	Location	Indoor/outdoor	
	Dimensions (HxWxD)	9.1" x 8.4" x 1.2"	<b>Included:</b> antenna, 15 ft coax cable, coax whip, articulated wall/post mounting bracket.
	Weight:	0.5 kg	
	Temperature range:	-40°C to +65°C (-40°F to +150°F)	
ANT400-REM-I/O+6dB	Type	Directional, high gain	<b>Intended use:</b> a high gain, directional flat-panel antenna for use with indoor or outdoor applications. To be mounted vertically on a wall or post.
	Communication range extension	Up to 2x the original range without antenna (single direction), plus 15 ft due to cable length. Up to 200' in typical building construction or up to 2000' clear line of sight.	
	Location	Indoor/outdoor	
	Dimensions (HxWxD)	9.1" x 8.4" x 1.2"	<b>Included:</b> antenna, 15 ft coax cable, coax whip and articulated wall/post mounting bracket.
	Weight:	0.5 kg	
	Temperature range:	-40°C to +65°C (-40°F to +150°F)	
ANT400-REM-CEILING	Type	Omni-directional, unity gain	<b>Intended use:</b> an omni-directional antenna for use with indoor applications. To be mounted horizontally on ceiling.
	Communication range extension	15 ft due to cable length. Up to 200' in typical building construction or up to 1000' clear line of sight.	
	Location	Indoor/outdoor	
	Dimensions (HxWxD)	9.1" x 8.4" x 1.2"	<b>Included:</b> antenna, 15 ft coax cable, and coax whip.
	Weight:	0.5 kg	
	Temperature range:	-40°C to +65°C (-40°F to +150°F)	
ANT400-REM-HALL	Type	Bi-directional, unity gain	<b>Intended use:</b> an bi-directional antenna for use with indoor applications. To be mounted on wall or ceiling.
	Communication range extension	15 ft due to cable length. Up to 200' in typical building construction or up to 1000' clear line of sight.	
	Location	Indoor	
	Dimensions (HxWxD)	7.2" x 3.9" x 4.9"	<b>Included:</b> antenna, 15 ft coax cable, and coax whip.
	Weight:	0.24 kg	
	Temperature range:	-10°C to + 65°C (14° F to + 150° F)	

■ FCC Part 15

### Accessories

- **MGB+MCA5 grounding kit**
  - The National Electrical Code (NEC) requires that any outdoor antenna be properly grounded.
  - The Schlage remote antenna grounding kit is compatible with all models of remote antenna.

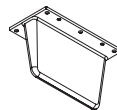
### Certification



ANT400-REM-IO<sup>1</sup>  
ANT400-REM-IO+6dB<sup>1</sup>



ANT400-REM-CEILING<sup>1</sup>



ANT400-REM-HALL<sup>1</sup>

<sup>1</sup> These are the only remote antennas that have been approved by FCC for use with Allegion AD Series 900MHz communication modules. Any other antenna with an Allegion AD Series 900MHz communication modules would be in violation of FCC regulation.

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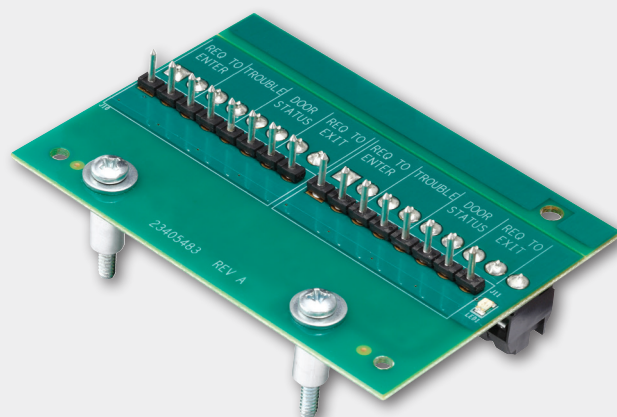
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# RLBD

## AD Series Dry Contact Relay Board



## Overview

The Schlage AD Series Relay Board (RLBD) is an add on board used on the PIM400-TD2 and PIB300-2D for access control systems that require Dry Contact closures for supervised inputs.

The optional RLBD Relay Board removes the need for slave wired relays which can be cumbersome to source, complicated to install, and difficult to troubleshoot. The use of this board over custom wired solutions increases system reliability and reduces installation labor.

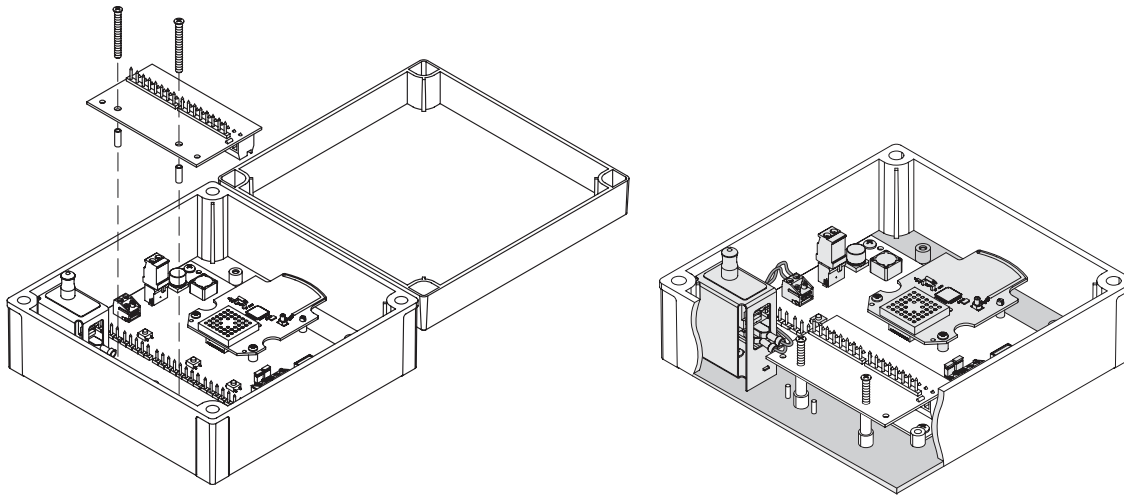
The RLBD is not required for integration of the PIM400-TD2 or the PIB3000-2D where the access control system can accept unsupervised inputs.

## Features and benefits

- Use with PIM400-TD2 or PIB300-2D
- Red LED light indicates power status
- Longer cycle lifetime than traditional mechanical-based relay solutions
- Access point status signals:
  - Request-to-enter
  - Request-to-exit
  - Door position/status
  - Tamper switch

## RLBD specifications

Voltage maximum (contact-to-contact)	28V
Maximum contact current	110 mA
"Open" state resistance	5 mega-ohms
"Closed" state resistance	2 ohms
Dimensions (H x W x D)	2.1" x 3.5" x 1.0" (5.33 cm x 8.89 cm x 2.54 cm)
Weight	0.125 lb (56.7 g)
Operating temperature	-31°F to 151°F (-35°C to 66°C)
Operating humidity	0-100% non-condensing



Installation of RLBD in a PIM400-TD2

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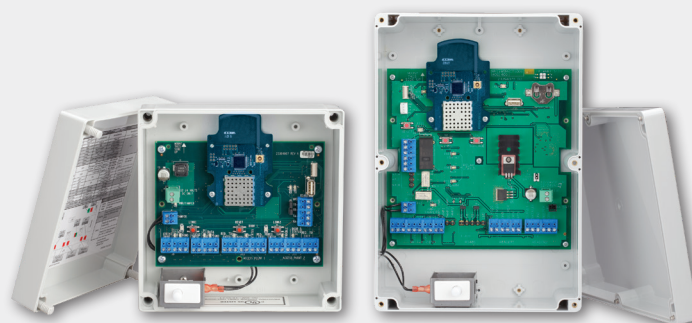


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# REPTR400

## Wireless Repeater Kit



## Overview

The Schlage REPTR400 Wireless Repeater Kit is a simple, all-in-one package solution for access control applications that require an extended wireless range. It can be used for indoor or outdoor applications enabling the integration and management of an opening too distant or difficult to reach via hard wires. Ideal applications include remote doors, historic buildings, gates and elevators.

The Schlage REPTR400 includes an AD Series Panel Interface Module (PIM400-TD2) and an AD Series Wireless Reader Interface (WRI400). The PIM400-TD2 interfaces with most access control systems. Its function is to wirelessly communicate with either an AD-400 Series wireless lock on the door or a separate WRI400 wired to other electronic components around the door. The PIM400-TD2 receives data via one radio channel and communicates it to the kit's WRI400 unit to be transmitted via another channel. The additional distances covered can be up to 900 ft. within a normally constructed building or up to 2500 ft. where there is direct line of site.

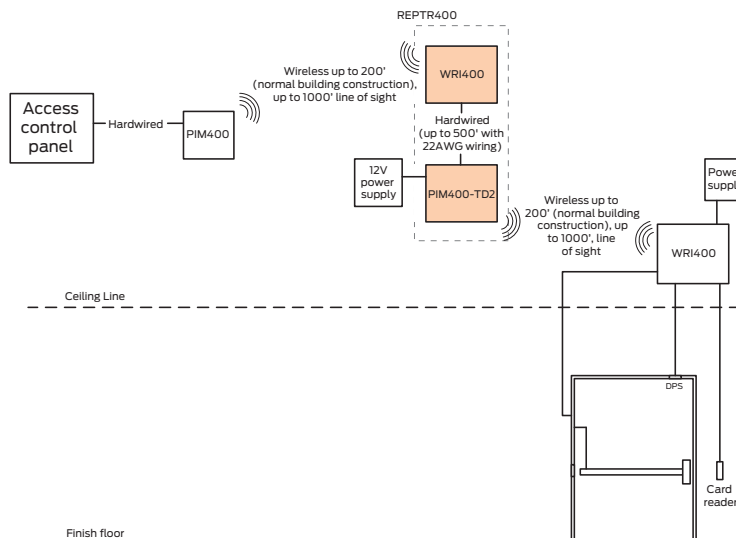
To extend range further for areas such as a remote gate or for use with a portable reader, a remote antenna (sold separately) can also be employed. If your distance needs suggest the use of an antenna, contact Allegion technical service for assistance.

## Features and benefits

- Convenient kit includes the WRI400 and PIM400-TD2
- Extends the reach of your access control system to remote locations without running wires
- Up to two REPTR400s can be added in a series (use only one for applications involving mag stripe credentials)
- WRI400:
  - 2 form C relay outputs –strike and auxiliary
  - Each RF transmission is encrypted with AES-128 bit keys
  - Reader interfaces support– Wiegand (data1/data 0) up to 255 bits and magnetic stripe (Clock & Data) up to 255 bits
  - UL 294 certified
- PIM400-TD2:
  - 900 MHz spread spectrum RF technology for long range, reliable communications
  - Automatic linking to remote wireless access points with 10 channel frequencies to select from enables easy commissioning
  - AES-128 bit encrypted spread spectrum transmissions
  - UL 294 certified

## PIM400-TD2 specifications

Frequency range	902-928 MHz
Modulation	900 MHz spread spectrum, direct sequence, 10 channels
Communication	Up to 200 ft (normal building construction); up to 1000 ft, clear line of sight
Operating temperature	-31° to 151°F (-35° to 66°C)
Humidity	0% to 100% condensing
Power supply	12 VDC or 24VDC
Dimensions (H x W x D)	7.1" x 7.1" x 3.0" (18.0 cm x 18.0 cm x 7.6 cm)
Weight	1.25 lb (.56 kg)
Certifications	NEMA 1, 4, 4X, 6; UL 294; FCC Part 15; RoHS; Industry Canada (IC)



Note: There are many other applications that use different wireless access points; this is one example of how a REPTR400 can be used.

## WRI400 specifications

Frequency range		902-928 MHz
Modulation		900 MHz spread spectrum, direct sequence, 10 channels
RF interference avoidance		Optional dynamic channel switching
Transmission/encryption		AES-128 bit key (optional)
Data rate		RF: 40 kbps
Credential verification time		< 1 second (WRI requires less than 100ms. Response time does not include latency time of ACP. Each REPTR400 Kit adds 250ms delay)
Communication range		Up to 200 ft (61 m), normal building construction Up to 1000 ft (305 m), clear line of sight (See ANT400-REM data sheet for increasing distance)
Power supply requirements		12 VDC or 24 VDC; 500 mA maximum current
Connector cable specifications	DC power input	18AWG, 2 conductor (Belden 8760 or equivalent), up to 1000 ft (305 m)
	Credential readers (x2)	Data signals: 22AWG, 6 conductor (Alpha 1296C or equivalent) up to 500 feet (152 meters) Reader tamper signals: 18AWG, twisted pair shielded (Beldon 8760 or equivalent) up to 500 feet (152 meters)
	Strike/aux relay outputs	18AWG, 2 conductor (Belden 8760 or equivalent), up to 2000 feet (610 meters)
	Request-to-enter and -exit inputs	18AWG, 2 conductor (Belden 8760 or equivalent), up to 2000 feet (610 meters)
Relay output tolerances	Strike output relay	Form C relay; 6 amps at 24 VDC or 6 amps at 120 VAC or 3 amps at 240 VAC
	Auxiliary output relay	Form C relay; 2 amps at 24 VDC or 0.5 amps at 120 VAC
Operating temperature		-31°F (-35°C) to 151°F (66°C)
Operating humidity		0 - 100% condensing
Dimensions (H x W x D)		10.43" x 7.28" x 3.79" (26.49 cm x 18.49 cm x 9.63 cm)
Certifications		NEMA 1, 4, 4X, 6; UL 294; FCC Part 15; Industry Canada (IC); RoHS
Optional accessories		593PI-12 DC - power supply for Panel Interface Module (PIM)

Available through one of our GSA schedule 84 approved distributors

## About Allegion

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# Schlage Utility Software (SUS)

on the Handheld Device (HHD)



## Overview

Schlage Utility Software (SUS) is designed specifically for use on the Handheld Device (HHD) as the link between your access control management software and Schlage AD/CO electronic offline and networked locks and accessories.

This solution consolidates and simplifies programming and managing your access control system. The SUS and HHD are used to initialize, configure and test product operation, and also provides an easy way to manage people, audits, locks and other network panel interface devices for simple access control. The intuitive screen layout for the SUS provides easy navigation during use.

For offline products, the SUS is utilized to transfer access control data, such as authorized user lists, via the HHD to the locks. The SUS is also utilized to download audit trail information from offline devices to the HHD and then transfer that data to the access control management software.

In addition, the SUS can configure other networked electronic devices (including PIM and PIB) and update firmware revision updates to the devices, as desired.

The HHD connects with Schlage AD Series electronic locks and accessories via a USB interface and utilizes active Synch or Win mobile device manager to communicate with your PC via the USB port. The HHD is also able to connect to the SPED, KC2, CM, CL, CT5000, CT1000, CL Controller and WA Series PIMs via a serial cable connection.

## Features and benefits

- Handheld Device with Schlage Utility Software installed
- Touch screen operation
- Initialize lock and accessories with SUS
- Configure and test devices
- New device template simplifies configuration



## HHD compatible devices and required cable and adaptors

Devices	Cable and adaptors
AD Series and CO Series locks PIM400, PIB300, WRI400, ECK400, GCK400, WPR400, TK400 and CT5000 controller	HH-USB (included in HHD-kit)

## Ordering information

- **HHD Kit -USB** – Handheld device with SUS installed and HH-USB cable
- **HH-USB** – USB cable only

For replacement HHD devices with a serial cable connection, please contact technical support at 877.671.7011.

## Features and specifications

### Schlage Utility Software

- Initialize lock and accessories
- Field configure devices
  - Credential reader formats
  - Lock function
  - Unlock period
  - Failure mode
  - Audible alarm on/off
- Offline devices
  - Manage up to 100 unique door files
  - Retrieve audit trails from up to 100 devices
- Networked devices
  - Communication settings
  - Validate status monitor
- Service and diagnostics
  - Battery status
  - Validate hardware and software revision
  - Troubleshooting status signals
  - Firmware upgrades

### HHD specifications

- 3.5 inch display
- Touch screen with backlit keypad
- Operating system: Windows Mobile 5.0
- Memory: 128 MB RAM / 256 MB ROM
- Battery: rechargeable Li-ion
- Dimensions (H x W x D): 5.1" X 2.8" X 0.65" (13.0 cm x 7.2 cm x 1.7 cm)
- Weight: 0.42 lbs (190 g)
- 5 ft (1.2 m) drop to steel surface, 2 drops per 6 sides

### How-to-videos

- Specially formatted how-to videos for viewing on the HHD are available online
- They can be downloaded from [www.schlage.com/support](http://www.schlage.com/support)
- If additional storage is needed, a standard mini SD memory card can be used
- Videos should be saved on the SD card or in a new folder on the device rather than in the shared sync folder or root directory
- Includes AD Series how-to instructions for door prep, installation, reader changes, etc.

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## Standalone locking



This section of the Electronic Access Control catalog covers standalone locks, controllers and accessories including the AD Series, CO Series and CT5000.

### Overview

Standalone access control solutions provide added security, convenience and efficiency for openings that do not require real-time monitoring. They allow you to reduce rekeying costs by issuing electronic credentials which can easily be added or deleted at any time. Audit trails tell you who requested access and when. You can also save time and money by setting automatic lock and unlock schedules for specific time zones and holidays.

Schlage AD Series and CO Series are the first electronic locks to achieve UL 294 certification which is the standard for safety of access control units. Both models feature a robust integrated design which incorporates many of the components typically found around the door including the lockset, credential reader and door position switch. They also offer a choice of chassis, credential reader, lever and finish options to meet the needs of a variety of applications and facilities.

### The AD Series:

#### Features

The AD Series is a flexible, adaptable and scalable solution that provides you with an extended breadth of options as well as a migration path to future technologies. It is ideal for applications with more advanced security needs.

Two different classifications are offered in the AD Series for standalone applications. The AD-200 is a computer managed system where user access rights are stored in the lock.

Modifications to user access privileges as well as audits are transferred between the access control software and the lock with the handheld programming device (HHD).

The AD-250 is a computer managed system where user access rights are stored on magnetic stripe cards. The AD-250 is often used in campus-like environments with a large number of users and offline openings.

The AD Series offers keypad, magnetic stripe, smart and multi-technology (reads both 125 kHz proximity and 13.56 MHz smart) reader options. All AD Series card readers are available with dual authentication for added security (card + PIN).

#### Benefits

The AD Series can be customized to meet the specific needs of each opening in a facility with a wide variety of factory orderable and field configurable options. The innovative modular design of the AD Series allows you to upgrade from standalone to networked if your needs change in the future. The AD Series also allows you to upgrade credential readers, for example, from magnetic stripe to multi-technology.

## Options<sup>1</sup>

The AD Series has several options to choose from including:

- **Class:** AD-200 & AD-250 (For AD-300 and AD-400 networked options, see the networked locking Introduction pages of this catalog)
- **Chassis:** Cylindrical, mortise, mortise deadbolt, exit trim
- **Function<sup>1</sup>:** Classroom/Storeroom, Office, Privacy, and Apartment
- **Readers<sup>1</sup>:** Keypad, magnetic stripe, smart and multi-technology readers (reads both 125 kHz proximity and 13.56 MHz smart). All card readers are available with + PIN option for added security.
- **Lever style:** Athens, Boardwalk, Broadway, Latitude, Longitude, Rhodes, Sparta, Tubular (tactile warning available)
- **Finishes:** 626 satin chrome, 605 bright brass, 606 satin brass, 612 satin bronze, 619 satin nickel, 625 bright chrome, 643e aged bronze, 626AM satin chrome with antimicrobial
- **Keyway/cylinders:** See lever and cylinder compatibility data sheet (010432)
- **Exit trim:** See AD Series exit trim compatibility data sheet (004382)

## The CO Series:

### Features

The CO Series is a reliable, compatible and proven solution backed by extensive testing and certification and the strong mechanical heritage of Schlage. It is ideal for applications that desire a cost effective solution for basic security needs.

Four different classifications are offered in the CO Series for standalone applications. The CO-100 is a manually programmed keypad only lock which allows up to 500 unique PIN codes for user access. The CO-200 and CO-220 can be manually programmed or computer managed with user access rights stored in the lock. Modifications to user access privileges as well as audits are transferred between the access control software to the lock with a handheld programming device (HHD). The CO-220 is unique because it allows for immediate local lockdown by simply pushing the button on the remote fob from anywhere in the classroom. An illuminated visual indicator located on the interior side of the lock provides instant verification that the door is secured from inside the room. The CO-250 is a computer managed system where user access rights are stored on magnetic stripe cards. The CO-250 is often used in campus-like environments with a large number of users and offline openings.

The CO Series offers keypad, magnetic stripe and proximity readers (125 kHz); CO Series readers are all available with dual authentication for added security (card + PIN). The CO Series is an excellent choice if the needs of the facility are not expected to change in the future.

### Benefits

The CO Series provides the added security and convenience of electronic access control without the cost or complexity of a networked system. By providing electronic credentials you can minimize the number of mechanical keys issued which protects the integrity of key systems. Choose from basic PIN code access for a small number of users or a card based system to serve a larger population of users.

### Options<sup>1</sup>

The CO Series has several options to choose from including:

- **Class:** CO-100, CO-200, CO-220, CO-250
- **Chassis:** Cylindrical, mortise, mortise deadbolt, exit trim
- **Function<sup>1</sup>:** Classroom/storeroom, office, and privacy
- **Readers<sup>1</sup>:** Keypad, magnetic stripe, proximity (125 kHz); all card readers are available with + PIN option for added security
- **Lever style:** Sparta, Rhodes, Athens, Tubular, Longitude, Latitude, Broadway, and Boardwalk (tactile warning options available)
- **Finishes:** 626 satin chrome, 605 bright brass, 606 satin brass, 612 satin bronze, 619 satin nickel, 625 bright chrome, 643e aged bronze, 626AM satin chrome with antimicrobial
- **Keyway/cylinders:** See lever and cylinder compatibility data sheet (010432)
- **Exit trim:** See CO Series exit trim compatibility data sheet (004183)

<sup>1</sup> Some options are dependent upon choice class and chassis; see price book for complete details.

	CO-100	CO-200/220	CO-250	AD-200	AD-250
<b>Device capacity</b>					
Number of users	500	2000 <sup>1</sup>	Unlimited <sup>1</sup>	5000 <sup>1</sup>	Unlimited <sup>1</sup>
Number of audits	N/A	2000 <sup>1</sup>	4000 <sup>1</sup>	5000 <sup>1</sup>	10000 <sup>1</sup>
<b>Reader options</b>					
Consult with OEM access control system provider for credential format compatibility					
Keypad only	Yes	Yes	No	Yes	No
Magnetic stripe card	No	Yes	Yes	Yes	Yes
125 kHz proximity card	No	Yes	No	Yes	No
Multi-technology - 125 kHz proximity and 13.56 MHz smart	No	No	No	Yes	No
Smart – iClass compatible	No	No	No	Yes	No
Card + PIN	No	Yes	Yes	Yes	Yes
<b>Status monitors</b>					
Request to exit	No	Yes	Yes	Yes <sup>2</sup>	Yes <sup>2</sup>
Door position switch	No	Yes	Yes	Yes	Yes
Mechanical key override (AKT)	Yes	Yes	Yes	Yes	Yes
Request to enter	No	No	No	No	No
Low battery status	Yes	Yes	Yes	Yes	Yes
Communication status	No	No	No	No	No
Remote lockdown /unlock	No	No	No	No	No
Deadbolt position	No	No	No	No	No
Interior push button	No	No	No	No	No
<b>Chassis options</b>					
Cylindrical	Yes	Yes	Yes	Yes	Yes
Mortise	Yes	Yes	Yes	Yes	Yes
Mortise deadbolt	No	Yes	Yes	Yes	Yes
Exit trim	Yes	Yes	Yes	Yes	Yes
<b>Functions</b>					
Consult with OEM access control system provider for specific support					
Classroom/storeroom (70)	Yes	CO-200 only	Yes	Yes	Yes
Privacy (40)	No	CO-200 only	Yes	Yes	Yes
Office (50)	Yes	CO-200 only	Yes	Yes	Yes
Apartment (60)	No	No	No	No	Yes
Classroom security (75)	No	CO-220 only	No	No	No

<sup>1</sup> Depending on your access control software

<sup>2</sup> Built in status signals available to enable migration to networked, not monitored in standalone application

## Accessories:

A variety of accessories are available for use with AD Series and CO Series standalone locks including:

- The Schlage utility software (SUS) on the handheld programming device (HHD) provides an easy way to retrieve audits and transfer information between your access control software and electronic locks.
- The combo proximity keyfobs with iButton® option is available which allows you to manage proximity and iButton® technologies in the same facility.
- Decorative plates are available for retrofit applications where the new lock does not completely cover the existing door prep.

## The CT5000 offline controller:

### Features

The CT5000 offline single opening controller is also available for standalone applications. The CT5000 can support up to two separate Wiegand readers as well as interface with peripheral devices such as automatic operators, electric strikes, and electromagnetic locks.

### Benefits

The CT5000 offline single opening controller is an ideal solution for narrow stile store front and exit door applications. The CT5000 can operate in the same system as the AD Series and CO Series electronic locks. If networked functionality is required in the future, the CT5000 can be easily upgraded to a networked WRI400 wireless reader interface.

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# AD-200

## Standalone electronic lock



### Overview

AD Series electronic locks from Schlage are designed to be modular and provide more options to choose from, more functionality in the lock and more compatibility with existing systems. Its patent-pending modular design allows the lock to be customized to fit the needs of an application now, and can change to meet future needs without removing it from the door.

Factory orderable options include choices of credential readers, chassis type, locking functions, power options, lever styles and finishes. It also offers a wide selection of features that can be configured in the field to customize your openings.

The AD-200 is a simple, economical solution if no access control system currently exists in facility, or for openings that don't require the control of a networked solution. The AD-200 is easily upgradable to a networked lock if requirements change in the future.

On all AD Series standalone locks, Schlage has built in many of the incremental features needed in a networked system such as request-to-exit and -enter sensors, interior cover tamper guard, as well as the door position switch. This way, if the customer chooses to network this opening in the future, all the components will be there to make the transition an easy one.

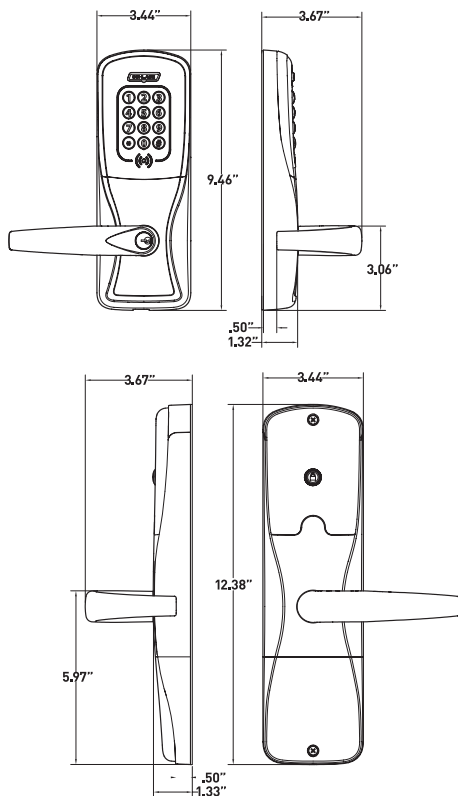
### Features and benefits

- Security that's more intelligent and convenient than traditional mechanical locking devices
- Audit trail reports that allow you to track usage and events
- Update users and access rights at the lock using the keypad or handheld device
- The ability to upgrade to a networked solution without removing the lock from the door
- Available in cylindrical, mortise, mortise deadbolt and exit trim
- Compatible with major brands of master key systems and exit devices
- Hardwired remote push button release capability
- Allows use of smart/mobile device as credential with Schlage and aptiQ mobile (multi-technology reader only)<sup>1</sup>
- ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL 10C, FCC Part 15, ADA, RoHS, FL12400<sup>2</sup>, FL1591<sup>2</sup>, FL13013<sup>2</sup> and FL14482<sup>2</sup>

<sup>1</sup> Refer to the Schlage/aptiQ mobile credential compatibility chart for a list of certified devices.

<sup>2</sup> Applies to cylindrical and mortise chassis only





## AD-200 electronic lock specifications

Users	Up to 5000
Audits	Up to 5000
Credential verification time	≤ 1 second <sup>1</sup>
Visual/audible communications	Tri-colored LEDs and audible indicators (field configurable)
System interface	Handheld Device (HHD)
Power supply	4AA, 8AA, 12 VDC or 24 VDC
Voltage range	4 VDC to 26 VDC
Max current requirement	Up to 250 mA
Battery life	Up to 2 yrs with 4AA
Operating temperature - exterior	-31° to 151°F (-35° to 66°C)
Operating temperature - interior	32° to 120°F (0° to 49°C) (battery)
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL 10C, FCC Part 15, ADA, RoHS
Accessories	Handheld Device (HHD)

### Functions

- Classroom/storeroom<sup>2</sup>
- Office<sup>2</sup>
- Privacy
- Apartment

### Standard status signals

- Lock/unlock status
- Mechanical key override
- Battery status

## Schlage Utility Software on Handheld Device

The Schlage Utility Software (SUS) on the Handheld Device (HHD) provides an easy way to manage people, audits and locks for simple access control management.

### Schlage Utility Software

- Initialize lock and accessories
- Field configure devices
  - Credential reader formats
  - Lock function
  - Unlock period
  - Failure mode
  - Audible alarm on/off
- Service and diagnostics
  - Battery status
  - Validate hardware and software revision
  - Troubleshooting status signals
- New device template simplifies configuration

### HHD

- 3.5 inch display
- Touch screen/keypad backlit
- 32-bit processor
- OS: Windows Mobile 6.5
- Memory: 128 MB RAM/ 256 MB ROM
- Battery: rechargeable Li-ion
- Dimensions: 5.1" x 2.8" x 0.65" (13.0 cm x 7.2 cm x 1.7 cm)
- Weight: 0.42 lbs (190 g)
- 5 ft (1.2 m) drop to steel surface, 2 drops per 6 sides



The HHD connects with AD Series and CO Series locks and accessories via the USB interface

For replacement HHD devices with a serial cable connection, please contact Technical Support at 877.671.7011.

<sup>1</sup> Verification time is dependent on size of user base

<sup>2</sup> Classroom/storeroom and office function not available with mortise deadbolt option.

## Mechanical specifications

Chassis	Cylindrical	Mortise	Exit trim
Handing	Handed to order, field reversible		
ANSI standard (Meets or exceeds)	A156.25 A156.2 Series 4000 Grade 1	A156.25 A156.13 Series 1000 Grade 1	A156.25 A156.3
Door thickness	1 3/4" standard, 1 3/8" to 2 3/4" optional (available in 1/8" increments)		
Backset	Standard: 2 3/4" Optional: 2 3/8", 3 3/4", 5"	2 3/4" only	Defined by exit device
Latch bolt	Standard: 1/2" throw Optional: 3/4" throw	Standard: 3/4" throw Optional: 1" throw on mortise deadbolt	Provided by exit device
Levers	Pressure cast zinc, plated		
Strike	Standard: 1 3/16" lip, ANSI, 1 1/4" x 4 7/8" Optional: Additional configurations available please see price book		Provided by exit device
Cylinder and keys	Schlage 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys standard. Additional options available including SFIC, FSIC and competitor brands. See lever and cylinder compatibility data sheet (010432)		

## Multi-technology reader specification

Frequency	125 kHz proximity and 13.56 MHz smart card
Standards	ISO standard 15693 and ISO 14443
Maximum read range	Up to 1.25" on 125 kHz proximity, up to 0.75" on 13.56 MHz smart card
125 kHz proximity credential use	<b>Compatibility:</b> Schlage®, XceedID®, HID®, GE/CASI ProxLite®, AWID® and LenelProx® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob, and PVC adhesive disk
13.56 MHz proximity credential use	<b>Secure sector compatibility:</b> Schlage and aptiQ™ MIFARE Classic®, XceedID, Schlage MIFARE Plus®, Schlage and aptiQ MIFARE® DESFire® EV1 with PACSA, Schlage and aptiQ mobile credentials; PIV and PIV-13, 4 <b>CSN only compatibility:</b> DESFire, HID iClass®, Inside Contactless Pico Tag®, MIFARE, MIFARE DESFire EV1, ST Microelectronics®, Texas Instruments Tag-It®, Phillips I-Code® <b>Schlage credential style formats:</b> Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob, wearable wristband, mobile, PVC adhesive patch
Certifications/standards	FCC, UL 294 Listed, ISO standard 15693, and ISO standard 14443
Style/layout	Option for 12 button, 3x4 matrix backlit keypad

<sup>1</sup> Request-to-exit switch optional for future network migration

<sup>2</sup> Narrow design and reversible rim exits not compatible

<sup>3</sup> 75 bit output format default. Configurable to other output formats. Check with access control provider for specific support

<sup>4</sup> Smart card functionality dependant on access control software

<sup>5</sup> Refer to the Schlage/aptiQ mobile credential compatibility chart for a list of certified devices

## AD Series exit trim

Installed with a universal mounting plate, the AD Series exit trim is compatible with the following exit devices:

- Von Duprin 98/99 & 98/99XP<sup>1</sup> Rim, surface vertical rod, mortise. Concealed vertical cable and concealed vertical rod on metal doors only.
- Von Duprin 22/22F<sup>1</sup> Rim, surface vertical rod
- Falcon 25<sup>1</sup> - Rim
- Sargent® 80<sup>2</sup> Series - Rim
- Precision™ 21 Rim 2100 converts to 21 with Precision's BP21 kit
- Corbin Russwin® 5000 Series - Rim
- Yale® 7000 - Rim
- Dorma® 9300 - Rim

## Benefits of AD Series multi-technology readers:

- Reads multiple brands of both proximity (125 kHz) and smart (13.56 MHz) technologies with single reader
- Allows use of smart/mobile device as credential with Schlage or aptiQ mobile technology<sup>3</sup>
- Allows facility to migrate to more secure credential technologies over time and as budgets permit

## Additional readers

### Smart – iClass compatible

- Smart card reader only
- Reads secure sector of HID iClass, iClass SE, iClass SEOS, iClass Standard Key, and iClass Elite Key; Schlage MIFARE Classic, MIFARE Plus, and MIFARE EV1
- BLE mobile credential not supported

### Magnetic stripe

- Available with choice of insertion or swipe style readers
- Triple track reader (1, 2 or 3), field configurable
- ABA, ISO76XX standard

### Keypad

- Backlit keypad
- 12 button, 3x4 matrix

## Available AD Series reader modules



**Multi-technology**

- Proximity
- Smart card
- Mobile

▪ KEYPAD  
FIPS 201-1 compliant option available (FMK)



**Multi-technology**

- Proximity
- Smart card
- Mobile



**Smart – iClass compatible**

- Smart card

▪ KEYPAD



**Smart – iClass compatible**

- Smart card



**Magnetic stripe (insertion)**

▪ KEYPAD



**Magnetic stripe (insertion)**



**Magnetic stripe (swipe)**

▪ KEYPAD



**Magnetic stripe (swipe)**



**Keypad**

# Ordering information

Available through one of our GSA schedule 84 approved distributions; BAA options available

AD-200-CY-70-MG-SPA-626-PD-S123-RH-4B-13-049-10-025-1 3/4

Series	Class	Chassis	Function	Reader	Lever style	Finish	Lever cylinder	Keying type	Handing	Battery	Backset and latch	Strike	Door thickness
1	2	3	4	5	6	7	8	9	10	11	12	13	14

Selections correspond with the numbers above

Standard options are indicated in bold. See price book for specific configuration options.

<b>3</b>	<b>Chassis</b>
CY	Cylindrical
MS	Mortise
MD	Mortise deadbolt
993R	Exit trim – Rim/CVC/CVR
993S	Exit trim – SVR
993M	Exit trim – mortise
993DT	Non-functioning dummy trim for exit
<b>4</b>	<b>Function</b>
70	Classroom/storeroom
50	Office
40	Privacy
60	Apartment
<b>5</b>	<b>Reader</b>
<b>KP</b>	<b>Keypad</b>
MG	Magnetic stripe (insertion)
MGK	Magnetic stripe + keypad (insertion)
MS	Magnetic stripe (swipe)
MSK	Magnetic stripe + keypad (swipe)
MT	Multi-technology
	(125kHz and 13.56 MHz)
MTK	Multi-technology + keypad
	(125kHz and 13.56 MHz)
Si	Smart - iClass compatible
SIK	Smart - iClass compatible + keypad
DT	Dummy trim

<b>6</b>	<b>Lever</b>
ATH	Athens
BRK	Boardwalk
BRW	Broadway
LAT	Latitude
LON	Longitude
RHO	Rhodes
SPA	Sparta
TLR	Tubular

Available with knurled surface

<b>7</b>	<b>Finish</b>
<b>626</b>	<b>Satin chrome</b>
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial

<b>8</b>	<b>Lever cylinder type</b>
<b>PD</b>	<b>Schlage 6-pin Conventional key-in-lever cylinder</b>

See price book for other SFIC, FSIC and Less Cores options available. Compatible with Schlage, Sargent, Corbin, Medeco and Yale.

<b>9</b>	<b>Keyway type</b>
<b>S123</b>	<b>Everest 29</b>

See price book for other available keyway options including master keying

<b>10</b>	<b>Handing</b>
-----------	----------------

<b>RH</b>	<b>Right handed</b>
<b>LH</b>	<b>Left handed</b>

Field reversible

<b>11</b>	<b>Battery</b>
<b>4B</b>	<b>4AA</b>
8B	8AA
<b>12</b>	<b>Backset and latch or armor front</b>

**Cylindrical**

**13-049** 2 3/4" backset, deadlatch, square corner, 1 1/8" x 2 1/4"

**Mortise**

**09-663** Armor front, 1 1/4" wide, square corner

See price book for mortise deadbolt and other backset and latch options or armor front options

<b>13</b>	<b>Strike</b>
-----------	---------------

**Cylindrical**

**10-025** 1 3/16" lip, ANSI, no box, 1 1/4" x 4 7/8"

**Mortise**

**10-072** 1 3/16" lip, 1 1/4" x 4 7/8" square corner, box

See price book for other available strikes

<b>14</b>	<b>Door thickness</b>
-----------	-----------------------

1 3/4"

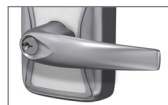
Other thicknesses available between

1 3/8" and 2 3/4"

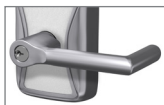
See price book for detail

## Lever styles

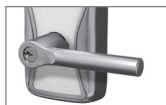
Conventional cylinders shown, SFIC and FSIC also available.



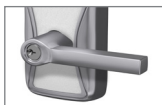
Athens



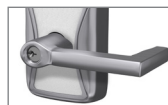
Boardwalk



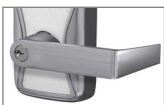
Broadway



Latitude



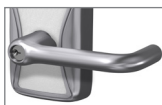
Longitude



Rhodes



Sparta



Tubular

## Finishes

Warm tone finishes



605 Bright brass



606 Satin brass



612 Satin bronze



643e Aged bronze

Cool tone finishes



619 Satin nickel



625 Bright chrome



626 Satin chrome



626AM Satin chrome with antimicrobial

## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

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# AD-250

## Standalone electronic lock



## Overview

AD Series electronic locks from Schlage are designed to be modular and provide more options to choose from, more functionality in the lock and more compatibility with existing systems. Its patent-pending modular design allows the lock to be customized to fit the needs of an application now, and can change to meet future needs without removing it from the door.

Factory orderable options include choices of magnetic stripe credential readers, chassis type, locking functions, power options, lever styles and finishes. It also offers a wide selection of features that can be configured in the field to customize your openings.

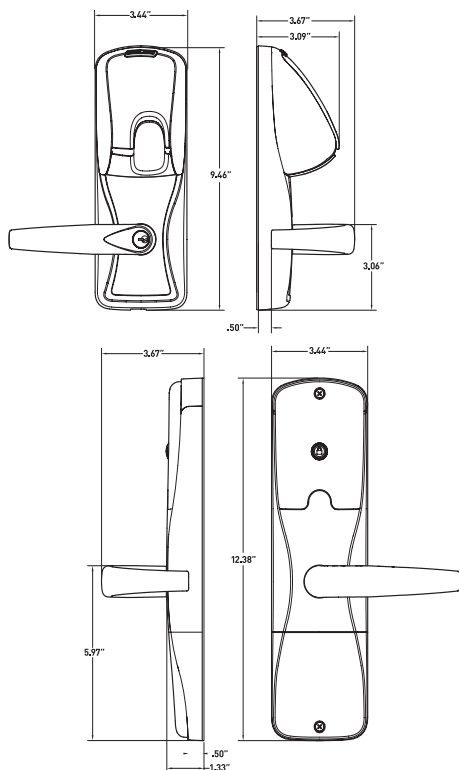
The AD-250 is a unique solution in which the credential, not the lock, carries access rights on a magnetic stripe card. This allows dynamic rights management on the card without reprogramming each lock in the facility. And the lock still maintains an audit trail of events at the door. This makes it a smart and economical solution for campus-like environments with a large number of users and offline openings.

On all AD Series standalone locks, Schlage has built in many of the incremental features needed in a networked system such as request-to-exit and request-to-enter sensors, interior cover tamper guard, as well as the door position switch. This way, if the customer chooses to network this opening in the future, all the components will be there to make the transition an easy one.

## Features and benefits

- Security that's more intelligent and convenient than traditional mechanical locking devices
- Audit trail reports that allow you to track usage
- Add users and access rights using credentials instead of having to visit each lock
- The ability to upgrade to a networked solution without removing the lock from the door
- Available in cylindrical, mortise, mortise deadbolt and exit trim
- Compatible with major brands of master key systems and exit devices
- Now available with magnetic swipe reader
- ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL 10C, FCC Part 15, ADA, RoHS, FL12400<sup>1</sup>, FL1591<sup>1</sup>, FL13013<sup>1</sup> and FL14482<sup>1</sup>

<sup>1</sup> Applies to cylindrical and mortise chassis only



## AD-250 electronic lock specifications

Users	Unlimited, dependent on software
Audits	Up to 10,000
Credential verification time	≤ 1 second
Visual/audible communications	Tri-colored LEDs and audible indicators (field configurable)
System interface	Handheld Device (HHD)
Power supply	4AA, 8AA, 12 VDC or 24 VDC
Voltage range	4 VDC to 26 VDC
Max current requirement	Up to 250 mA
Battery life	Up to 2 yrs with 4AA
Operating temperature - exterior	-31° to 151°F (-35° to 66°C)
Operating temperature - interior	32° to 120°F (0° to 49°C) (battery)
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, U L10C, FCC Part 15, ADA, RoHS
Accessories	Handheld Device (HHD), magnetic stripe credential encoder (CL-Encoder 2)

### Functions

- Classroom/storeroom<sup>1</sup>
- Office<sup>1</sup>
- Privacy
- Apartment

### Standard status signals

- Lock/unlock status
- Mechanical key override
- Battery status

## Schlage Utility Software on Handheld Device

The Schlage Utility Software (SUS) on the Handheld Device (HHD) provides an easy way to manage people, audits and locks for simple access control management.

### Schlage Utility Software

- Initialize lock and accessories
- Field configure devices
  - Credential reader formats
  - Lock function
  - Unlock period
  - Failure mode
  - Audible alarm on/off
- Service and diagnostics
  - Battery status
  - Validate hardware and software revision
  - Troubleshooting status signals
- New device template simplifies configuration

### HHD

- 3.5 inch display
- Touch screen/keypad backlit
- 32-bit processor
- OS: Windows Mobile 6.5
- Memory: 128 MB RAM/ 256 MB ROM
- Battery: rechargeable Li-ion
- Dimensions: 5.1" x 2.8" x 0.65" (13.0 cm x 7.2 cm x 1.7 cm)
- Weight: 0.42 lbs (190 g)
- 5 ft (1.2 m) drop to steel surface, 2 drops per 6 sides



The HHD connects with AD Series and CO Series locks and accessories via the USB interface

For replacement HHD devices with a serial cable connection, please contact Technical Support at 877.671.7011.

<sup>1</sup> Classroom/storeroom and office function not available with mortise deadbolt option. To ensure safety, all functions always allow for free egress.

## Mechanical specifications

Chassis	Cylindrical	Mortise	Exit trim
Handing	Handed to order, field reversible		
ANSI standard (Meets or exceeds)	A156.25 A156.2 Series 4000 Grade 1	A156.25 A156.13 Series 1000 Grade 1	A156.25 A156.3
Door thickness	1 3/4" standard, 1 3/8" to 2 3/4" optional (available in 1/8" increments)		
Backset	Standard: 2 3/4" Optional: 2 3/8", 3 3/4", 5"	2 3/4" only	Defined by exit device
Latch bolt	Standard: 1/2" throw Optional: 3/4" throw	Standard: 3/4" throw Optional: 1" throw on mortise deadbolt	Provided by exit device
Levers	Pressure cast zinc, plated		
Strike	Standard: 1 3/16" lip, ANSI, 1 1/4" x 4 7/8" Optional: Additional configurations available please see price book		Provided by exit device
Cylinder and keys	Schlage 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys standard. Additional options available including SFIC, FSIC and competitor brands. See lever and cylinder compatibility data sheet (010432)		

## AD Series exit trim

Installed with a universal mounting plate, the AD Series exit trim is compatible with the following exit devices:

- Von Duprin 98/99 & 98/99XP<sup>1</sup> Rim, surface vertical rod, mortise. Concealed vertical cable and concealed vertical rod on metal doors only.
- Von Duprin 22/22F<sup>1</sup> Rim, surface vertical rod
- Falcon 25<sup>1</sup> - Rim
- Sargent® 80<sup>2</sup> Series - Rim
- Precision™ 21 Rim 2100 converts to 21 with Precision's BP21 kit
- Corbin Russwin® 5000 Series - Rim
- Yale® 7000 - Rim
- Dorma® 9300 - Rim

Available  
AD-250  
reader  
options



### Magnetic stripe (swipe)

- KEYPAD
- Triple track reader (1, 2 or 3), field configurable
- ABA, ISO76XX Standard
- Reader can be cleaned without removing lock from door
- 12 button, 3x4 matrix backlit keypad



### Magnetic stripe (swipe)

- Triple track reader (1, 2 or 3), field configurable
- ABA, ISO76XX Standard
- Reader can be cleaned without removing lock from door
- 12 button, 3x4 matrix backlit keypad



### Magnetic stripe (insertion)

- KEYPAD
- Triple track reader (1, 2 or 3), field configurable
- ABA, ISO76XX standard



### Magnetic stripe (insertion)

- Triple track reader (1, 2 or 3), field configurable
- ABA, ISO76XX standard

<sup>1</sup> Request-to-exit switch optional for future network migration

<sup>2</sup> Narrow design and reversible rim exits not compatible



# Ordering information

Available through one of our GSA schedule 84 approved distributions; BAA options available

AD-250-CY-70-MG-SPA-626-PD-S123-RH-4B-13-049-10-025-1 3/4

Series	Class	Chassis	Function	Reader	Lever style	Finish	Lever cylinder	Keying type	Handing	Battery	Backset and latch	Strike	Door thickness
1	2	3	4	5	6	7	8	9	10	11	12	13	14

Selections correspond with the numbers above

Standard options are indicated in bold. See price book for specific configuration options.

3	Chassis
CY	Cylindrical
MS	Mortise
MD	Mortise deadbolt
993R	Exit trim – Rim/CVC/CVR
993S	Exit trim – SVR
993M	Exit trim – mortise
993DT	Non-functioning dummy trim for exit
4	Function
70	Classroom/storeroom
50	Office
40	Privacy
60	Apartment
5	Reader
MG	Magnetic stripe (insertion)
MGK	Magnetic stripe + keypad (insertion)
<b>MS</b>	<b>Magnetic stripe (swipe)</b>
MSK	Magnetic stripe + keypad (swipe)
DT	Dummy trim
6	Lever
ATH	Athens
BRK	Boardwalk
BRW	Broadway
LAT	Latitude
LON	Longitude
RHO	Rhodes
SPA	Sparta
TLR	Tubular

Available with tactile warning options

## Lever styles

Conventional cylinders shown, SFIC and FSIC also available.



Athens

Boardwalk

Broadway

Latitude

Longitude

Rhodes

Sparta

Tubular

7	Finish
<b>626</b>	<b>Satin chrome</b>
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial
8	Lever cylinder type
<b>PD</b>	<b>Schlage 6-pin Conventional cylinder</b>
See price book for other SFIC, FSIC and Less Cores options available. Compatible with Schlage, Sargent, Corbin, Medeco and Yale.	
9	Keyway type
<b>S123</b>	<b>Everest 29</b>
See price book for other available keyway options including master keying	
10	Handing
<b>RH</b>	<b>Right handed</b>
LH	Left handed
Field reversible	
11	Battery
<b>4B</b>	<b>4AA</b>
8B	8AA

12	Backset and latch or armor front
<b>Cylindrical</b>	
<b>13-049</b>	<b>2 3/4" backset, deadlatch, square corner, 1 1/8" x 2 1/4"</b>
<b>Mortise</b>	
<b>09-663</b>	<b>Armor front, 1 1/4" wide, square corner</b>
See price book for mortise deadbolt and other backset and latch options or armor front options	
13	Strike
<b>Cylindrical</b>	
<b>10-025</b>	<b>1 3/16" lip, ANSI, no box, 1 1/4" x 4 7/8"</b>
<b>Mortise</b>	
<b>10-072</b>	<b>1 3/16" lip, 1 1/4" x 4 7/8" square corner, box</b>
See price book for other available strikes	
14	Door thickness
<b>1 3/4"</b>	
Other thicknesses available between 1 3/8" and 2 3/4"	
See price book for detail	

## Finishes

Warm tone finishes



605  
Bright brass



606  
Satin brass



612  
Satin bronze



643e  
Aged bronze

Cool tone finishes



619  
Satin nickel



625  
Bright chrome



626  
Satin chrome



626AM  
Satin chrome with antimicrobial

## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

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# AD Series

## Exit trim compatibility



## Overview

The AD Series electronic lock is available in 993 Exit Trim for use on openings that require exit devices for either retrofit or new construction applications. Offline and networked solutions are available. The 993 Exit Trim was designed to suite with AD Series cylindrical and mortise locksets to ensure that the facility remains aesthetically consistent. The AD Series 993 Exit Trim utilizes universal hardware to simplify installation of offline trim to a variety of exit devices, including rim style from Von Duprin, Falcon, Sargent®, Precision™ Corbin Russwin, Dorma®, and Yale®.

### Available Exit Trim styles:

- 993R – Rim, concealed vertical cable or concealed vertical rod (CVC and CVR for metal doors only)
- 993S – Surface vertical rod
- 993M – Mortise

## Features and benefits

- Multiple credential reader options
- Offline and networked communication options
- A wide variety of finishes and lever styles
- Power options that include hardwired (12 VDC or 24 VDC) or batteries (4AA or 8AA)
- Compatible with all Schlage Conventional, FSIC and SFIC formatted cylinders including many competitive OEM cylinders such as, Sargent®, Corbin Russwin, Medeco® and Yale®

## Compatibility

Devices	AD-200/250	AD-300/AD-302 <sup>3</sup> AD-400/AD-402 <sup>3</sup>
Von Duprin 98/99 and 98/99XP rim/SVR/ CVR <sup>1</sup> /CVC <sup>1</sup> /mortise	X	X
Von Duprin 22/22F rim/SVR	X	X
Falcon 25 rim	X	X
Sargent® 80 <sup>2</sup> rim	X	
Precision™ 21 rim (2100 converts to 21 with Precision's BP21 kit)	X	
Yale® 7000 rim	X	
Corbin Russwin 5000 rim	X	
Dorma® 9300 rim	X	

<sup>1</sup> For metal doors only

<sup>2</sup> Narrow design and reversible rim exits not compatible.

<sup>3</sup> The proper low current request to exit switch (RX-LC) is required for AD-300/302 and AD-400/402. Part numbers for request to exit switch:

- Von Duprin: 050281
- Falcon: 650359

## Available AD Series reader modules<sup>2</sup>

- Multi-technology (125 kHz proximity and 13.56 MHz smart card)
- FIPS 201-2 compliant multi-technology (125 kHz proximity and 13.56 MHz smart card)
- Smart – iClass compatible
- Mobile
- Magnetic stripe
- Keypad only
- All credential readers available + keypad

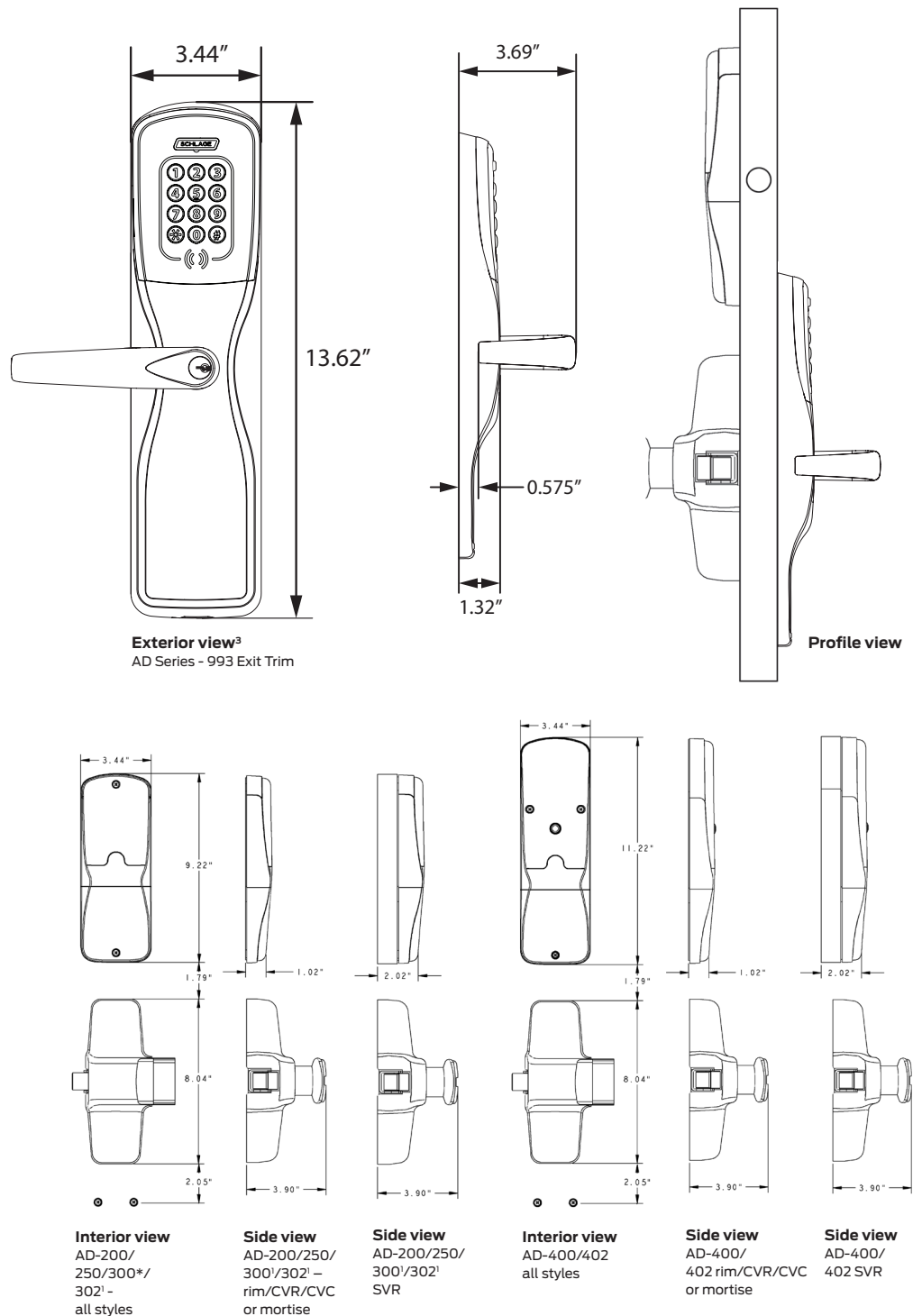
## Available communication options

- AD-400: Networked wireless locks
- AD-402: Networked wireless locks - FIPS 201-2 compliant
- AD-300: Networked hardwired locks
- AD-302: Networked hardwired locks - FIPS 201-2 compliant
- AD-250: Offline, access rights stored on the magnetic stripe credential
- AD-200: Offline, access rights stored on the lock

<sup>1</sup> AD-300/302 includes LED indicator

<sup>2</sup> Unlike other AD Series chassis styles, upgrading reader modules on the 993 Exit Trim requires the exterior escutcheon to be removed from the door

<sup>3</sup> (2) #7 fasteners with decorative washers located 11.88" below bottom edge of lock



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## About Allegion

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# CO-100

## Standalone electronic lock



Images shown are not to scale.

## Overview

The CO Series is the ideal solution for customers seeking the added security and convenience of electronic access control without the cost or complexity of a fully networked system.

The CO-100 is a standalone lock that is manually programmable. User rights for the CO-100 are stored on the lock. Unique PIN codes can be assigned to each user. This minimizes the number of mechanical keys issued which protects the integrity of your key system. PIN codes can be easily added or deleted at anytime, right at the door.

The CO-100 from Schlage offers you many choices. Cylindrical, mortise, and exit trim chassis options are available, as well as a wide variety of finishes and levers to suite with your existing hardware.

Mechanical key override is standard and compatible with multiple cylinder types. The CO Series is also compatible with many popular brands of exit devices. The CO-100 in office function can be hard wired to a remote release button to control the door without the use of temporary PIN codes.

CO Series has been tested to the highest standards in the industry to ensure the quality and reliability you have come to expect from Schlage. The CO Series is ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified and UL 294 Listed.

## Features and benefits

- Manually programmable
- Up to 500 unique 3-6 digit PIN codes stored on the lock
- ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified, UL 294 and UL 10C listed, hurricane wind and impact rated<sup>1</sup>
- Classroom/storeroom, office and privacy function available
- Chassis options include cylindrical, mortise, and exit trim
- Compatible with most major brands of key systems and exit devices
- Hard wired, remote release push button capability<sup>2</sup>
- Programmable option for lighted occupancy indication<sup>3</sup>
- Three levels of user authority
- Normal, toggle, pass through, and freeze credential attributes available
- LED indicator visually communicates lock status

<sup>1</sup> Applies to cylindrical and mortise chassis only

<sup>2</sup> Available on office function locks manufactured after 1/1/2018 with firmware version 2.6.2 or higher

<sup>3</sup> Available on privacy function locks manufactured after 9/30/2018 with firmware version 2.7.0 or higher

## CO-100 electronic lock specifications

Users	500
Credential verification time (keypad only)	≤ 1 second
Visual/audible communications	Tri-colored LED's and audible indicators
Power supply	4 AA batteries (standard off the shelf: included)
Battery life	Up to 2 yrs with 4 AA batteries
Operating temperature - exterior	-31° to 151°F (-35° to 66°C)
Operating temperature - interior	32° to 120°F (0° to 49°C) due to battery
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL 10C, UL Canada, FCC Part 15, FL12400 <sup>1</sup> , FL1591 <sup>1</sup> , FL13013 <sup>1</sup> and FL14482 <sup>1</sup> ADA and RoHS

### Functions

- Classroom/storeroom
- Office
- Privacy

### Standard status signals

- Battery status—indicated by flashing LED lights
- Access granted/access denied
- Programming commands
- Occupied—indicated by red LED light (privacy function only)

## Programming and use options

Function code	User level	Description
PIN <sup>2</sup>	Basic	Unlocks the lock momentarily when in a normally secured state.
Programming	Manager/administrator	Initiates all programming actions (can be changed by administrator)
User changes	Manager/administrator	Assigns or deletes user PINs for the lock
Toggle	Manager/administrator	Changes the lock to an unlocked state and back when desired
Freeze	Administrator	Maintains the lock in current state until code is re-entered (cannot be toggled)
Pass through	Administrator	Unlocks the lock momentarily regardless of current state
Other	Administrator	Includes change relock delay period; change PIN length; disable/enable beeper; disable/enable remote release <sup>3</sup> ; disable/enable LED occupancy indication <sup>4</sup>

<sup>1</sup> Applies to cylindrical and mortise chassis only

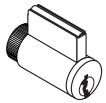
<sup>2</sup> Credentials can be 3-6 digits in length

<sup>3</sup> Remote release feature available on office function only.

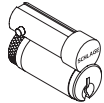
<sup>4</sup> Occupancy indication feature available on privacy function only.

## Mechanical specifications

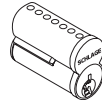
Chassis	Cylindrical	Mortise	Exit trim
Handing	Handed to order, field reversible		
ANSI standard (Meets or exceeds)	A156.25 A156.2 Series 4000 Grade 1	A156.25 A156.13 Series 1000 Grade 1	A156.25 A156.3
Door thickness	1 3/4" standard, 1 3/8" to 2 3/4" optional (available in 1/8" increments)		
Backset	Standard: 2 3/4" Optional: 2 3/8", 3 3/4", 5"	2 3/4" only	Defined by exit device
Latch bolt	Standard: 1/2" throw Optional: 3/4" throw	Standard: 3/4" throw	Provided by exit device
Levers	Pressure cast zinc, plated		
Strike	Standard: 1 3/16" lip, ANSI, 1 1/4" x 4 7/8" Optional: Additional configurations available please see price book		Provided by exit device
Cylinder and keys	Schlage 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys standard. Additional options available including SFIC, FSIC and competitor brands. See lever and cylinder compatibility data sheet (010432)		
Exit device compatibility	See CO Series exit trim compatibility data sheet (004183)		



Full cylinder

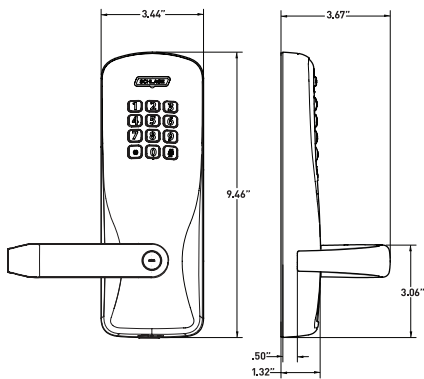


Full Size  
Interchangeable Core

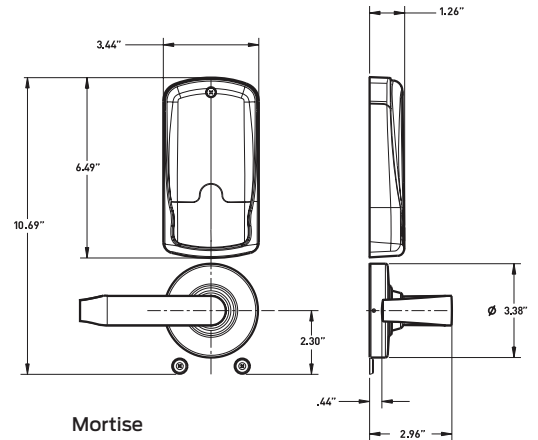
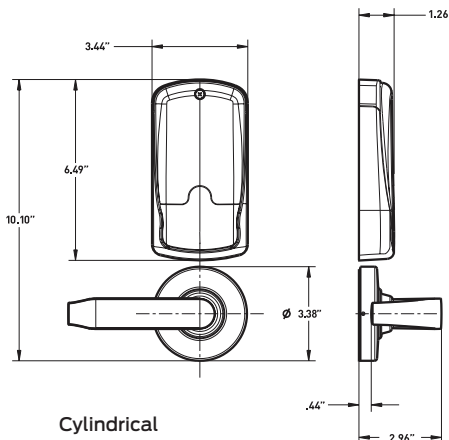


Small Format  
Interchangeable Core

### Exterior of the lock



### Interior of the lock





# Ordering information

Available through one of our GSA schedule 84 approved distributions

Required fields							Factory defaults and options					
CO-100-CY-70-KP-SPA-626-PD-S123-RH-13-049-10-025-1 3/4												
Series	Class	Chassis	Function	Reader	Lever style	Finish	Lever cylinder	Keying type	Handing	Backset and latch	Strike	Door thickness
1	2	3	4	5	6	7	8	9	10	11	12	13

Selections correspond with the numbers above

Standard options are indicated in bold. See price book for specific configuration options.

3	Chassis
CY	Cylindrical
MS	Mortise
993R	Exit trim – Rim/CVR/CVC
993S	Exit trim – SVR
993M	Exit trim – mortise
993DT	Exit dummy trim
4	Function
70	Classroom/storeroom
50	Office
40	Privacy
5	Reader
KP	Keypad
6	Lever
ATH	Athens
BRK	Boardwalk
BRW	Broadway
LAT	Latitude
LON	Longitude
RHO	Rhodes
SPA	Sparta
TLR	Tubular

Available with tactile warning options

7	Finish
626	Satin chrome
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial

8	Lever cylinder type
PD	Schlage 6-pin Conventional key-in-lever cylinder

See price book for other SFIC, FSIC and less cores options available. Compatible with Schlage, Sargent, Corbin, Medeco and Yale.

9	Keyway type
S123	Everest 29

See price book for other available keyway options including master keying

10	Handing
RH	Right handed
RHR	Right handed reverse
LH	Left handed
LHR	Left handed reverse

Field reversible

11	Backset and latch or armor front
----	----------------------------------

<b>Cylindrical</b>	
<b>13-049</b>	<b>2 3/4" backset, deadlatch, square corner, 1 1/8" x 2 1/4"</b>
<b>Mortise</b>	
<b>09-663</b>	<b>Armor front, 1 1/4" wide, square corner</b>

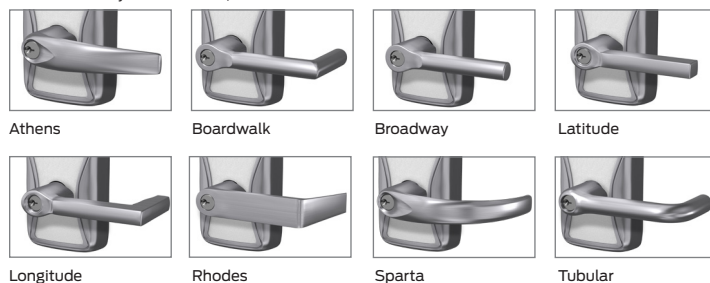
12	Strike
<b>Cylindrical</b>	
10-025	1 3/16" lip, ANSI, no box, 1 1/4" x 4 7/8"
<b>Mortise</b>	
10-072	1 3/16" lip, 1 1/4" x 4 7/8" square corner, box

See price book for other available strikes

13	Door thickness
1 3/4"	
Other thicknesses available between 1 3/8" and 2 3/4"	
See price book for details	

## Lever styles

Conventional cylinders shown, SFIC and FSIC also available.



Longitude

Rhodes

Sparta

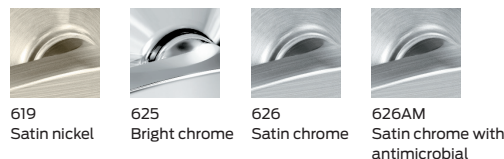
Tubular

## Finishes

Warm tone finishes



Cool tone finishes



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## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

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# CO-200

## Standalone electronic lock



Images shown are not to scale.

## Overview

The CO Series is the ideal solution for customers seeking the added security and convenience of electronic access control without the cost or complexity of a fully networked system.

The CO-200 is computer or manually programmable with users rights stored on the lock. The Handheld Device (HHD) used in conjunction with your access control software, allows you to easily add or delete users and retrieve audits.

By issuing electronic credentials you can minimize the number of mechanical keys issued which protects the integrity of your key system. A variety of credential readers are also available including keypad only, magnetic stripe, and proximity. The magnetic stripe and proximity readers are also available with keypad for the added security of dual authentication.

Cylindrical, mortise, mortise deadbolt, and exit trim chassis options are available as well as a wide variety of finishes and levers to suite with your existing hardware.

Mechanical key override is standard and compatible with multiple cylinder types. The CO Series is also compatible with many popular brands and types of exit devices.

The CO Series has been tested the highest standards in the industry to ensure quality and reliability you have come to expect from Schlage. The CO Series is ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified and UL 294 Listed.

## Features and benefits

- Computer programmable with audit trail
- Up to 2000 users and up to 2000 audits<sup>1</sup>
- Up to 32 holidays and 16 time zones<sup>1</sup>
- ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified, UL 294 listed, FL12400<sup>2</sup>, FL1591<sup>2</sup>, FL13013<sup>2</sup> and FL14482B<sup>2</sup>
- User rights stored on the lock
- The ability to add and delete users at the lock
- Available in cylindrical, mortise, mortise deadbolt, and exit trim
- Compatible with major brands of key systems and exit devices
- Classroom/storeroom, office, and privacy functions available
- LED indicator visually communicates lock status

<sup>1</sup> Depending on access control software.

<sup>2</sup> Applies to cylindrical and mortise chassis only

## CO-200 electronic lock specifications

Users	Up to 2,000 <sup>1</sup>
Audits	Up to 2,000 <sup>1</sup>
Credential verification time	≤ 1 second
Visual/audible communications	Tri-colored LED's and audible indicators
Power supply	4 AA batteries (standard off the shelf: included)
Voltage range	4 VDC to 7 VDC
Max current requirement	Up to 250 mA
Battery life	Up to 2 yrs with 4AA batteries
Operating temperature - exterior	-31° to 151°F (-35° to 66°C)
Operating temperature - interior	32° to 120°F (0° to 49°C) due to batteries
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL 10C, UL Canada, FCC Part 15, ADA and RoHS

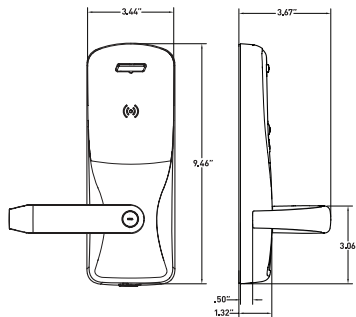
### Functions

- Classroom/storeroom<sup>2</sup>
- Office<sup>2</sup>
- Privacy<sup>3</sup>

### Standard status signals

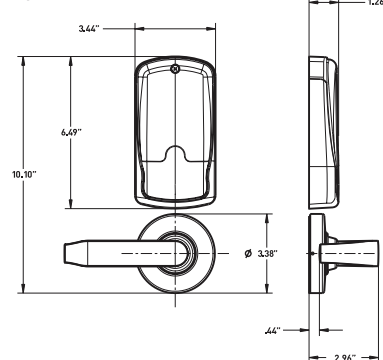
- Mechanical key override
- Battery status - indicated by blinking lights
- Access granted/access denied
- Programming commands

#### Exterior of the lock

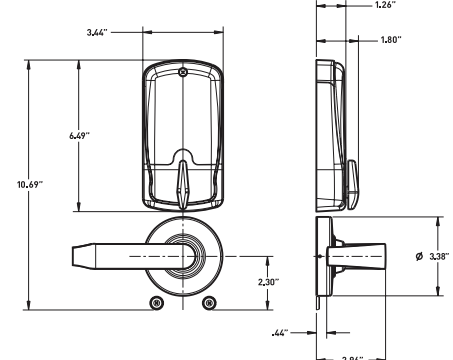


#### Interior of the lock

##### Cylindrical



##### Mortise deadbolt



## Schlage Utility Software on Handheld Device

The Schlage Utility Software (SUS) on the Handheld Device (HHD) provides an easy way to manage people, audits and locks for simple access control management.

#### Schlage Utility Software

- Initialize lock and accessories
- Field configure devices
  - Credential reader formats
  - Lock function
  - Unlock period
  - Failure mode
  - Audible alarm on/off
- Service and diagnostics
  - Battery status
  - Validate hardware and software revision
  - Troubleshooting status signals
- New device template simplifies configuration

#### HHD

- 3.5 inch display
- Touch screen/keypad backlit
- 32-bit processor
- OS: Windows Mobile 6.5
- Memory: 128 MB RAM/ 256 MB ROM
- Battery: rechargeable Li-ion
- Dimensions: 5.1" x 2.8" x 0.65" (13.0 cm x 7.2 cm x 1.7 cm)
- Weight: 0.42 lbs (190 g)
- 5 ft (1.2 m) drop to steel surface, 2 drops per 6 sides



The HHD connects with AD Series and CO Series locks and accessories via the USB interface

For replacement HHD devices with a serial cable connection, please contact Technical Support at 877.671.7011.

<sup>1</sup> Depending on access control software.

<sup>2</sup> Classroom/storeroom and office function not available with mortise deadbolt option. To ensure safety, all functions always allow for free egress.

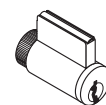
<sup>3</sup> Door position switch is required for cylindrical and mortise chassis with privacy function.

## Mechanical specifications

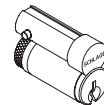
Chassis	Cylindrical	Mortise	Exit trim
Handing	Handed to order, field reversible		
ANSI standard (Meets or exceeds)	A156.25 A156.2 Series 4000 Grade 1	A156.25 A156.13 Series 1000 Grade 1	A156.25 A156.3
Door thickness	1 3/4" standard, 1 3/8" to 2 3/4" optional (available in 1/8" increments)		
Backset	Standard: 2 3/4" Optional: 2 3/8", 3 3/4", 5"	2 3/4" only	Defined by exit device
Latch bolt	Standard: 1/2" throw Optional: 3/4" throw	Standard: 3/4" throw Optional: 1" throw on mortise deadbolt	Provided by exit device
Levers	Pressure cast zinc, plated		
Strike	Standard: 1 1/16" lip, ANSI, 1 1/4" x 4 7/8" Optional: Additional configurations available please see price book		Provided by exit device
Cylinder and keys	Schlage 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys standard. Additional options available including SFIC, FSIC and competitor brands. See lever and cylinder compatibility data sheet (010432)		
Exit device compatibility	See CO Series exit trim compatibility data sheet (004183)		

## Reader specifications

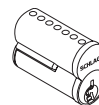
	Keypad	Magnetic stripe	Proximity
Frequency standards	N/A	ABA, ISO76XX standard high and low coercivity	125 kHz
Maximum read range	N/A	N/A (swipe card)	up to 1.25"
Compatibility	3-6 digit pin code	Triple track reader (1, 2 or 3), field configurable	Schlage, XceedID® HID®, GE/CASI ProxLite™ and AWID®
Compatible XceedID/Schlage credentials	N/A	Configurable to read complete track 1, 2 or 3	125 kHz clamshell, ISO card, ISO card with magnetic stripe, keyfob, and PVC disk (7000 Series)
Style/layout	12-button, 3x4 matrix	Option for 12-button, 3x4 matrix	Option for 12-button, 3x4 matrix



Full cylinder



Full Size Interchangeable Core



Small Format Interchangeable Core

The combo proximity keyfobs with iButton® option are available which allows you to manage proximity and iButton® technologies in the same facility.



Available  
CO-200  
reader  
options



Keypad



Proximity  
KEYPAD



Proximity



Magnetic stripe



Magnetic stripe  
KEYPAD

# Ordering information

Available through one of our GSA schedule 84 approved distributions

Required fields							Factory defaults and options					
CO-200	CY-70	PR-SPA	626	PD	S123	RH	13-049	10-025	1	3/4		
Series	Class	Chassis	Function	Reader	Lever style	Finish	Lever cylinder	Keying type	Handing	Backset and latch	Strike	Door thickness
1	2	3	4	5	6	7	8	9	10	11	12	13

Selections correspond with the numbers above

Standard options are indicated in bold. See price book for specific configuration options.

3	Chassis
CY	Cylindrical
MS	Mortise
MD	Mortise deadbolt
993R	Exit trim – Rim/CVC/CVR
993S	Exit trim – SVR
993M	Exit trim – mortise
993DT	Exit dummy trim
4	Function
70	Classroom/storeroom
50	Office
40	Privacy
5	Reader
KP	Keypad
MS	Magnetic stripe
MSK	Magnetic stripe + keypad
PR	Proximity
PRK	Proximity + keypad
6	Lever
ATH	Athens
BRK	Boardwalk
BRW	Broadway
LAT	Latitude
LON	Longitude
RHO	Rhodes
SPA	Sparta
TLR	Tubular

Available with tactile warning options

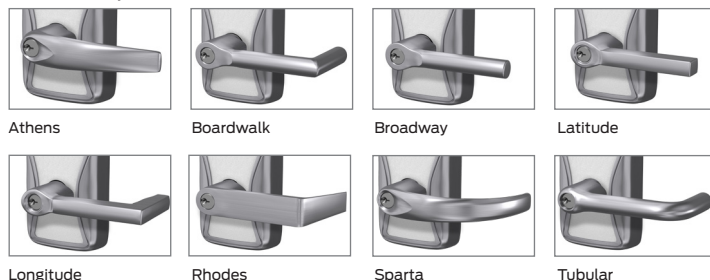
7	Finish
626	<b>Satin chrome</b>
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial
8	Lever cylinder type
PD	Schlage 6-pin Conventional key-in-lever cylinder
See price book for other SFIC, FSIC and less cores options available. Compatible with Schlage, Sargent, Corbin, Medeco and Yale.	
9	Keyway type
S123	Everest 29
See price book for other available keyway options including master keying	
10	Handing
RH	Right handed
RHR	Right handed reverse
LH	Left handed
LHR	Left handed reverse

Field reversible

11	Backset and latch or armor front
Cylindrical	
13-049	<b>2 3/4" backset, deadlatch, square corner, 1 1/8" x 2 1/4"</b>
Mortise	
09-663	<b>Armor front, 1 1/4" wide, square corner</b>
See price book for mortise deadbolt and other backset and latch options or armor front options	
12	Strike
Cylindrical	
10-025	<b>1 3/16" lip, ANSI, no box, 1 1/4" x 4 7/8"</b>
Mortise	
10-072	<b>1 3/16" lip, 1 1/4" x 4 7/8" square corner, box</b>
See price book for other available strikes	
13	Door thickness
1 3/4"	
Other thicknesses available between 1 3/8" and 2 3/4"	
See price book for detail	

## Lever styles

Conventional cylinders shown, SFIC and FSIC also available.



Athens

Boardwalk

Broadway

Latitude

Longitude

Rhodes

Sparta

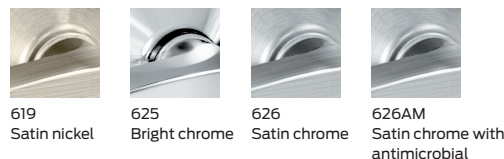
Tubular

## Finishes

Warm tone finishes



Cool tone finishes



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## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

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## CO-220

Standalone classroom lockdown solution with remote fob and visual indicator



Images shown are not to scale and are subject to change.

### Overview

The CO Series standalone classroom lockdown solution with remote fob and visual indicator is the ideal solution for customers who require the ability to initiate immediate local lockdown of up to 10 paired locks within range in the event of an emergency. The CO-220 classroom lockdown solution with remote fob and visual indicator can be put into a lockdown state (panic mode) from within the room by authorized staff members utilizing a pre-paired remote fob.

The CO-220 classroom lockdown solution with remote fob and visual indicator is computer or manually programmable with user rights stored on the lock. The Handheld Device (HHD), used in conjunction with your access control software, allows you to easily add or delete users and retrieve audits.

By issuing electronic credentials, you can minimize the number of mechanical keys issued which protects the integrity of your key system. A variety of credential readers are also available, including keypad, magnetic stripe and proximity.

Cylindrical, mortise and exit trim chassis options are available as well as a wide variety of finishes and levers to suite with your existing hardware. Mechanical key override is standard and compatible with multiple cylinder types.

The CO Series has been tested to the highest standards in the industry to ensure the quality and reliability you have come to expect from Schlage. The CO Series is ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified, and UL 10C Listed.

### Features and benefits

- Includes one pre-paired remote lockdown fob
  - Typical range of up to 75' on secured side and up to 25' on exterior side of the door<sup>1</sup>
- Continuous internal LED illumination during lockdown/panic mode
- In lockdown/panic mode, only fob, key or administrative/safety official credentials will override lock
- Always free egress even in lockdown/panic mode
- Manually or computer programmable with audit trail
- Up to 2000 users and up to 2000 audits<sup>2</sup>
- Up to 32 holidays and 16 time zones<sup>2</sup>
- ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified, UL 10C, FL12400<sup>3</sup>, FL1591<sup>3</sup>, FL13013<sup>3</sup> and FL14482<sup>3</sup> listed
- User rights stored on the lock
- The ability to add and delete users at the lock
- Available in cylindrical, mortise and exit trim options
- Compatible with major brands of key systems

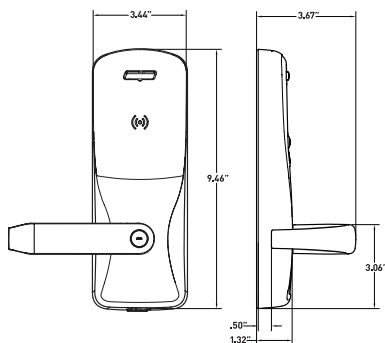
<sup>1</sup> Depending on building construction

<sup>2</sup> Depending on standalone access control software

<sup>3</sup> Applies to cylindrical and mortise chassis only

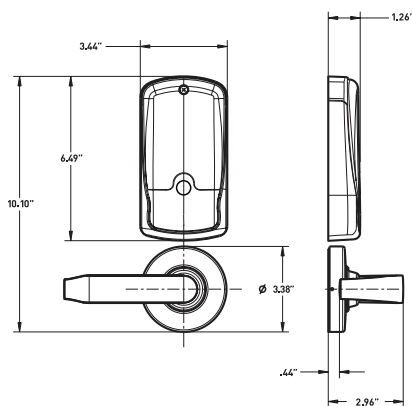


### Exterior of the lock



### Interior of the lock

#### Cylindrical



## CO-220 electronic lock specifications

Users	Up to 2,000 <sup>1</sup>
Audits	Up to 2,000 <sup>1</sup>
Credential verification time	≤ 1 second
Visual/audible communications	Tri-colored LED's and audible indicators
Power supply	4 AA batteries (standard off the shelf; included)
Voltage range	4 VDC to 7 VDC
Max current requirement	Up to 250 mA
Battery life	Up to 2 yrs with 4AA batteries
Operating temperature - exterior	-31° to 151°F (-35° to 66°C)
Operating temperature - interior	32° to 120°F (0° to 49°C) due to batteries
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 10C, UL Canada, FCC Part 15, ADA and RoHS

### Functions

- Classroom security<sup>2</sup>

### Standard status signals

- Mechanical key override
- Battery status - indicated by blinking lights
- Access granted/access denied
- Programming commands

## Fob specifications

Battery life	Up to 2 years with a CR2025 coin cell battery
--------------	---

- Remote lockdown fob (part #4485001) is shipped standard with the lock and can be paired to a single lock.
- Remote lockdown fob (part #24744856) is sold separately as an accessory and can be paired to up to ten locks.
- Each lock can be paired to up to ten fobs.

## Schlage Utility Software on Handheld Device

The Schlage Utility Software (SUS) on the Handheld Device (HHD) provides an easy way to manage people, audits and locks for simple access control management.

### Schlage Utility Software

- Initialize lock and accessories
- Field configure devices
  - Credential reader formats
  - Lock function
  - Unlock period
  - Failure mode
  - Audible alarm on/off
- Service and diagnostics
  - Battery status
  - Validate hardware and software revision
  - Troubleshooting status signals
- New device template simplifies configuration

### HHD

- 3.5 inch display
- Touch screen/keypad backlit
- 32-bit processor
- OS: Windows Mobile 6.5
- Memory: 128 MB RAM/ 256 MB ROM
- Battery: rechargeable Li-ion
- Dimensions: 5.1" x 2.8" x 0.65" (13.0 cm x 7.2 cm x 1.7 cm)
- Weight: 0.42 lbs (190 g)
- 5 ft (1.2 m) drop to steel surface, 2 drops per 6 sides



The HHD connects with AD Series and CO Series locks and accessories via the USB interface

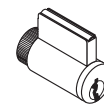
For replacement HHD devices with a serial cable connection, please contact Technical Support at 877.671.7011.

<sup>1</sup> Depending on access control software

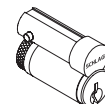
<sup>2</sup> To ensure safety, all functions always allow for free egress

## Mechanical specifications

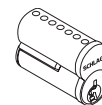
Chassis	Cylindrical	Mortise	Exit trim
Handing	Handed to order, field reversible		
ANSI standard (Meets or exceeds)	A156.25 A156.2 Series 4000 Grade 1	A156.25 A156.13 Series 1000 Grade 1	A156.25 A156.3
Door thickness	1 3/4" standard, 1 3/8" to 2 3/4" optional (available in 1/8" increments)		
Backset	Standard: 2 3/4" Optional: 2 3/8", 3 3/4", 5"	2 3/4" only	Defined by exit device
Latch bolt	Standard: 1/2" throw Optional: 3/4" throw	Standard: 3/4" throw	Provided by exit device
Levers	Pressure cast zinc, plated		
Strike	Standard: 1 3/16" lip, ANSI, 1 1/4" x 4 7/8" Optional: Additional configurations available please see price book		Provided by exit device
Cylinder and keys	Schlage 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys standard. Additional options available including SFIC, FSIC and competitor brands. See lever and cylinder compatibility data sheet (010432)		
Exit device compatibility	See CO Series exit trim compatibility data sheet (004183)		



Full cylinder



Full Size Interchangeable Core



Small Format Interchangeable Core

## Reader specifications

	Keypad	Magnetic stripe	Proximity
Frequency standards	N/A	ABA, ISO76XX standard high and low coercivity	125 kHz
Maximum read range	N/A	N/A (swipe card)	up to 1.25"
Compatibility	3-6 digit pin code	Triple track reader (1, 2 or 3), field configurable	Schlage, XceedID®, HID®, GE/CASI ProxLite™ and AWID®
Compatible XceedID/Schlage credentials	N/A	Configurable to read complete track 1, 2 or 3	125 kHz clamshell, ISO card, ISO card with magnetic stripe, keyfob, and PVC disk (7000 Series)
Style/layout	12-button, 3x4 matrix	Option for 12-button, 3x4 matrix	Option for 12-button, 3x4 matrix

Available  
CO-220  
reader  
options



Keypad



Proximity  
KEYPAD



Proximity



Magnetic Stripe



Magnetic Stripe  
KEYPAD

## Ordering information

Required fields							Factory defaults and options					
CO-220-CY-75-PR-SPA-626-PD-S123-RH-13-049-10-025-1 3/4												
Series	Class	Chassis	Function	Reader	Lever style	Finish	Lever cylinder	Keying type	Handing	Backset and latch	Strike	Door thickness
1	2	3	4	5	6	7	8	9	10	11	12	13

Selections correspond with the numbers above

Standards options are indicated in bold. See price book for specific configuration options.

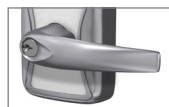
3	Chassis
CY	Cylindrical
MS	Mortise
993R	Exit trim- Rim/CVC/CVR
993M	Exit trim- mortise
993DT	Exit dummy trim
4	Function
75	Classroom Security
5	Reader
KP	Keypad
PR	Proximity
PRK	Proximity + keypad
MS	Magnetic stripe
MSK	Magnetic stripe + keypad
6	Lever
ATH	Athens
BRK	Boardwalk
BRW	Broadway
LAT	Latitude
LON	Longitude
RHO	Rhodes
SPA	Sparta
TLR	Tubular
Available with tactile warning options	

7	Finish
626	<b>Satin chrome</b>
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial
8	Lever cylinder type
PD	<b>Schlage 6-pin Conventional key-in-lever cylinder</b>
See price book for other SFIC, FSIC and less cores options available. Compatible with Schlage®, Sargent®, Corbin Russwin, Medeco® and Yale®.	
9	Keyway type
S123	<b>Everest 29</b>
See price book for other available keyway options including master keying	
10	Handing
RH	<b>Right handed</b>
RHR	Right handed reverse
LH	Left handed
LHR	Left handed reverse
Field reversible	

11	Backset and latch or armor front
<b>Cylindrical</b>	
13-049	<b>2 3/4" backset, deadlatch, square corner, 1 1/8" x 2 1/4"</b>
<b>Mortise</b>	
09-663	<b>Armor front, 1 1/4" wide, square corner</b>
See price book for mortise deadbolt and other backset and latch options or armor front options	
12	Strike
<b>Cylindrical</b>	
10-025	<b>1 3/16" lip, ANSI, no box, 1 1/4" x 4 7/8"</b>
<b>Mortise</b>	
10-072	<b>1 3/16" lip, 1 1/4" x 4 7/8" square corner, box</b>
See price book for other available strikes	
13	Door thickness
1 3/4"	
Other thicknesses available between 1 3/8" and 2 3/4"	
See price book for detail	

## Lever styles

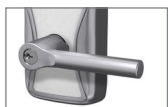
Conventional cylinders shown, SFIC and FSIC also available.



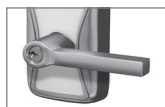
Athens



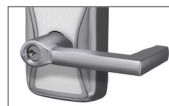
Boardwalk



Broadway



Latitude



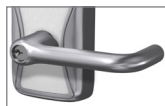
Longitude



Rhodes



Sparta



Tubular

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## Finishes

Warm tone finishes



605 Bright brass



606 Satin brass



612 Satin bronze



643e Aged bronze

Cool tone finishes



619 Satin nickel



625 Bright chrome



626 Satin chrome



626AM Satin chrome with antimicrobial



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# CO-250

## Standalone electronic lock



Images shown are not to scale.

## Overview

The CO Series is the ideal solution for customers seeking the added security and convenience of electronic access control without the cost or complexity of a fully networked system.

The CO-250 is a computer programmable offline lock that stores user rights on the magnetic stripe credential, and captures an audit trail in the lock. The CO-250 provides dynamic rights management, meaning you do not have to visit the door to change user access rights. This makes it a cost effective solution for offline environments with a large number of users. The CO-250 also allows you to retrieve audits by using the Handheld Device (HHD) in conjunction with your access control software.

The CO-250 from Schlage offers you many choices. Cylindrical, mortise, mortise deadbolt, and exit trim chassis options are available as well as a wide variety of finishes and levers to suite with your existing hardware.

Mechanical key override is standard and compatible with multiple cylinder types. The CO Series is also compatible with many popular brands of exit devices.

The CO Series has been tested the highest standards in the industry to ensure quality and reliability you have come to expect from Schlage. The CO Series is ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified and UL 294 Listed.

## Features and benefits

- Computer programmable with audit trail
- Unlimited number of users and up to 4000 audits<sup>1</sup>
- Available with magnetic stripe and magnetic stripe plus keypad
- Up to 32 holidays and 16 time zones<sup>1</sup>
- ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified, UL 294 listed, FL12400<sup>2</sup>, FL1591<sup>2</sup>, FL13013<sup>2</sup> and FL14482<sup>2</sup>
- User rights stored on the magnetic stripe credential
- The ability to easily add and delete users
- Available in cylindrical, mortise, mortise deadbolt, and exit trim
- Compatible with major brands of key systems and exit devices
- Classroom/storeroom, office, and privacy functions available

<sup>1</sup> Depending on access control software.

<sup>2</sup> Applies to cylindrical and mortise chassis only

## CO-250 electronic lock specifications

Users	Unlimited <sup>1</sup>
Audits	Up to 4,000 <sup>1</sup>
Credential verification time	≤ 1 second
Visual/audible communications	Tri-colored LED's and audible indicators (field configurable)
System Interface	Handheld device
Power supply	4 AA batteries
Battery life	Up to 2 yrs with 4 AA batteries
Operating temperature - exterior	-31° to 151°F (-35° to 66°C)
Operating temperature - interior	32° to 120°F (0° to 49°C) due to batteries
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL 10 C, UL Canada, FCC Part 15, ADA and RoHS
Accessories	Handheld Device (HHD), magnetic stripe credential encoder (CL-Encoder 2)

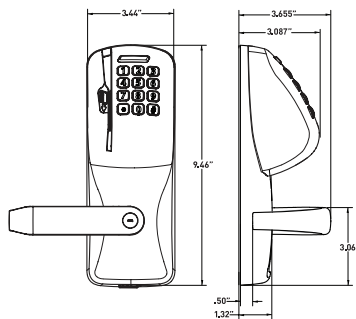
### Functions

- Classroom/storeroom<sup>2</sup>
- Office<sup>2</sup>
- Privacy<sup>3</sup>

### Standard status signals

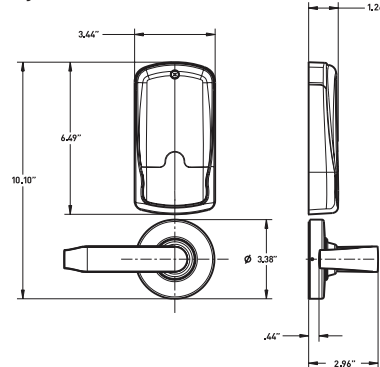
- Mechanical key override
- Battery status
- Access granted/access denied
- Programming commands

#### Exterior of the lock

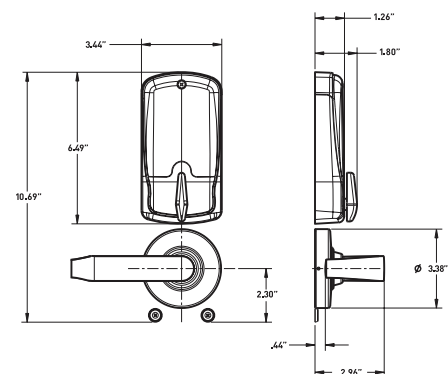


#### Interior of the lock

##### Cylindrical



##### Mortise deadbolt



## Schlage Utility Software on Handheld Device

The Schlage Utility Software (SUS) on the Handheld Device (HHD) provides an easy way to manage people, audits and locks for simple access control management.

#### Schlage Utility Software

- Initialize lock and accessories
- Field configure devices
  - Credential reader formats
  - Lock function
  - Unlock period
  - Failure mode
  - Audible alarm on/off
- Service and diagnostics
  - Battery status
  - Validate hardware and software revision
  - Troubleshooting status signals
- New device template simplifies configuration

#### HHD

- 3.5 inch display
- Touch screen/keypad backlit
- 32-bit processor
- OS: Windows Mobile 6.5
- Memory: 128 MB RAM/ 256 MB ROM
- Battery: rechargeable Li-ion
- Dimensions: 5.1" x 2.8" x 0.65" (13.0 cm x 7.2 cm x 1.7 cm)
- Weight: 0.42 lbs (190 g)
- 5 ft (1.2 m) drop to steel surface, 2 drops per 6 sides



The HHD connects with AD Series and CO Series locks and accessories via the USB interface

For replacement HHD devices with a serial cable connection, please contact Technical Support at 877.671.7011.

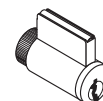
<sup>1</sup> Depending on access control software.

<sup>2</sup> Classroom/storeroom and office function not available with mortise deadbolt option. To ensure safety, all functions always allow for free egress.

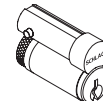
<sup>3</sup> Door position switch is required for cylindrical and mortise chassis with privacy function.

## Mechanical specifications

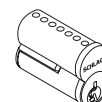
Chassis	Cylindrical	Mortise	Exit trim
Handing	Handed to order, field reversible		
ANSI standard (Meets or exceeds)	A156.25 A156.2 Series 4000 Grade 1	A156.25 A156.13 Series 1000 Grade 1	A156.25 A156.3
Door thickness	1 3/4" standard, 1 3/8" to 2 3/4" optional (available in 1/8" increments)		
Backset	Standard: 2 3/4" Optional: 2 3/8", 3 3/4", 5"	2 3/4" only	Defined by exit device
Latch bolt	Standard: 1/2" throw Optional: 3/4" throw	Standard: 3/4" throw Optional: 1" throw on mortise deadbolt	Provided by exit device
Levers	Pressure cast zinc, plated		
Strike	Standard: 1 3/16" lip, ANSI, 1 1/4" x 4 7/8" Optional: Additional configurations available please see price book		Provided by exit device
Cylinder and keys	Schlage 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys standard. Additional options available including SFIC, FSIC and competitor brands. See lever and cylinder compatibility data sheet (010432)		
Exit device compatibility	See CO Series exit trim compatibility data sheet (004183)		



Full cylinder



Full Size Interchangeable Core



Small Format Interchangeable Core

Available  
CO-250  
reader  
specifications



### Magnetic stripe

- KEYPAD
- Triple track reader (1, 2 or 3), field configurable
- ABA, ISO76XX standard
- 12 button, 3x4 matrix keypad



### Magnetic stripe

- Triple track reader (1, 2 or 3), field configurable
- ABA, ISO76XX standard



# Ordering information

Available through one of our GSA schedule 84 approved distributions

Required fields								Factory defaults and options				
CO-250	CY-70	MS	SPA	626	PD	S123	RH	13-049	10-025	1	3/4	
Series	Class	Chassis	Function	Reader	Lever style	Finish	Lever cylinder	Keying type	Handing	Backset and latch	Strike	Door thickness
1	2	3	4	5	6	7	8	9	10	11	12	13

Selections correspond with the numbers above

Standards options are indicated in bold. See price book for specific configuration options.

3	Chassis
CY	Cylindrical
MS	Mortise
MD	Mortise deadbolt
993R	Exit trim – Rim/CVC/CVR
993S	Exit trim – SVR
993M	Exit trim – mortise
993DT	Dummy exit trim
4	Function
70	Classroom/storeroom
50	Office
40	Privacy
5	Reader
MS	Magnetic stripe
MSK	Magnetic stripe + keypad
6	Lever
ATH	Athens
BRK	Boardwalk
BRW	Broadway
LAT	Latitude
LON	Longitude
RHO	Rhodes
SPA	Sparta
TLR	Tubular

Available with tactile warning options

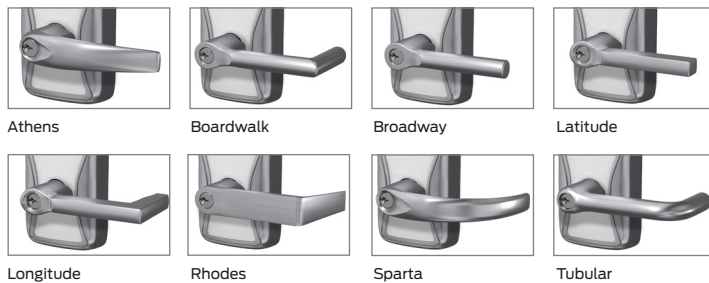
7	Finish
626	<b>Satin chrome</b>
605	Bright brass
606	Satin brass
612	Satin bronze
619	Satin nickel
625	Bright chrome
643e	Aged bronze
626AM	Satin chrome antimicrobial
8	Lever cylinder type
PD	<b>Schlage 6-pin Conventional key-in-lever cylinder</b>
See price book for other SFIC, FSIC and less cores options available. Compatible with Schlage®, Sargent®, Corbin Russwin, Medeco® and Yale®.	
9	Keyway type
S123	<b>Everest 29</b>
See price book for other available keyway options including master keying	
10	Handing
RH	<b>Right handed</b>
RHR	Right handed reverse
LH	Left handed
LHR	Left handed reverse

Field reversible

11	Backset and latch or armor front
<b>Cylindrical</b>	
13-049	<b>2 3/4" backset, deadlatch, square corner, 1 1/8" x 2 1/4"</b>
<b>Mortise</b>	
09-663	<b>Armor front, 1 1/4" wide, square corner</b>
See price book for mortise deadbolt and other backset and latch options or armor front options	
12	Strike
<b>Cylindrical</b>	
10-025	<b>1 3/16" lip, ANSI, no box, 1 1/4" x 4 7/8"</b>
<b>Mortise</b>	
10-072	<b>1 3/16" lip, 1 1/4" x 4 7/8" square corner, box</b>
See price book for other available strikes	
13	Door thickness
<b>1 3/4"</b>	
Other thicknesses available between 1 3/8" and 2 3/4"	
See price book for details	

## Lever styles

Conventional cylinders shown, SFIC and FSIC also available.



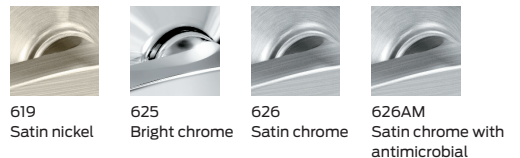
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## Finishes

Warm tone finishes



Cool tone finishes



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## CO Series

Exit Trim compatibility



### Overview

The CO Series offers 993 Exit Trim for use with compatible exit devices in retrofit or new construction applications. The 993 Exit Trim was designed to suite with CO Series cylindrical and mortise locksets to ensure that the facility remains aesthetically consistent. The CO Series 993 Exit Trim utilizes universal hardware to simplify installation of offline trim to a variety of exit devices, including Rim style from Von Duprin, Falcon, Sargent®, Precision™ Corbin Russwin®, Dorma®, and Yale®

#### Available Exit Trim styles:

- 993R – Rim, Concealed Vertical Rod or Concealed Vertical Cable (CVR/CVC for metal doors only)
- 993S – Surface vertical rod
- 993M – Mortise
- 993DT – Non-functioning dummy trim for exit

### Features and benefits

- Multiple credential reader options
- A wide variety of finishes and lever styles
- Powered by 4 AA batteries<sup>1</sup>
- Compatible with all Schlage Conventional, FSIC and SFIC formatted cylinders including many competitive OEM cylinders such as Sargent®, Corbin Russwin®, Medeco® and Yale®
- UL 294 Listed, ANSI/BHMA A156.25, ANSI/BHMA Grade 1 certified<sup>2</sup>

### Compatibility

Devices	CO-100/CO-200/CO-220 <sup>5</sup> /CO-250
Von Duprin 98/99 and 98/99XP Rim/SVR <sup>5</sup> /CVR <sup>3</sup> /CVC <sup>3</sup> /mortise	X
Von Duprin 22/22F Rim/SVR <sup>5</sup>	X
Falcon 25 Rim	X
Sargent® 80 <sup>4</sup> Rim	X
Precision™ 21 Rim (2100 converts to 21 with Precision's BP21 kit)	X
Yale® 7000 Rim	X
Corbin Russwin® 5000 Rim	X
Dorma® 9300 Rim	X

<sup>1</sup> Excluding dummy trim devices (993DT)

<sup>2</sup> UL 294 does not apply to dummy trim devices (993DT) or CO-220 locks

<sup>3</sup> Metal door only

<sup>4</sup> Narrow design and reversible Rim exits not compatible

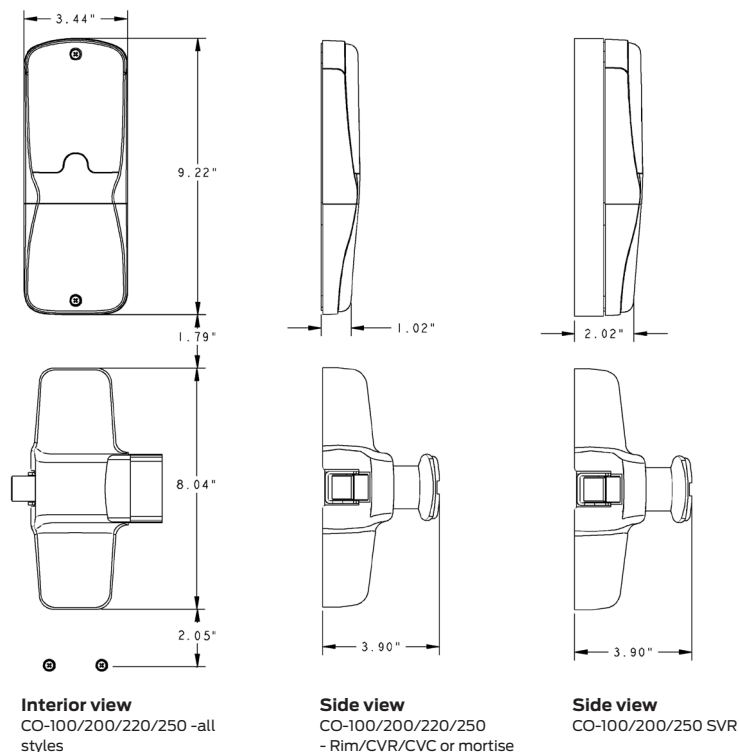
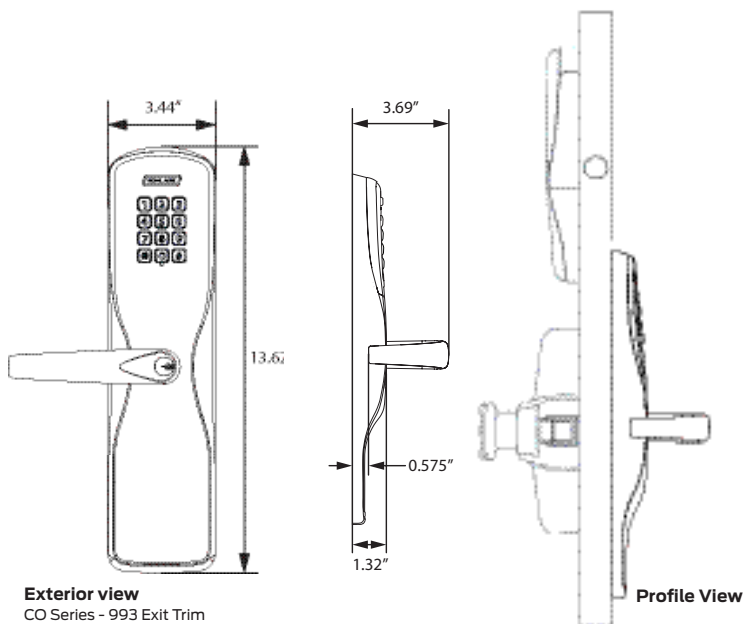
<sup>5</sup> CO-220 is not compatible with surface vertical rod (SVR) devices

## Compatibility

Reader options	CO-100	CO-200/CO-220	CO-250
KP keypad	X	X	
PR proximity		X	
PRK proximity + keypad		X	
MS magnetic stripe		X	X
MSK magnetic stripe + keypad		X	X

## Programming options

Reader options	CO-100	CO-200/CO-220	CO-250
Computer		X	X
Manual	X	X	



Note: (2) #7 fasteners with decorative washers located 11.88" below bottom edge of lock

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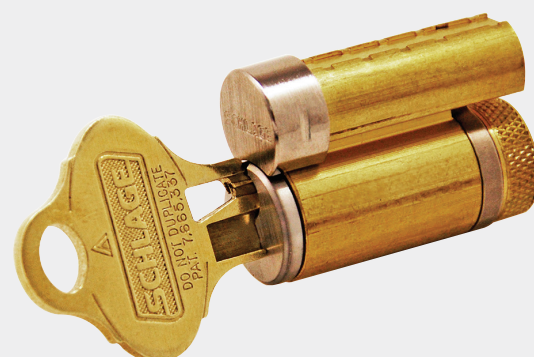
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# AD Series and CO Series

Lever and cylinder  
compatibility



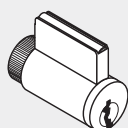
## Overview

AD Series and CO Series electronic locks come standard with the Schlage® 6-pin Everest 29™ S123 keyway and two patented keys. The Everest 29 keyway's patent-protected undercut design with protection through 2029 is available in open and restricted keyway families. Patented restricted keyways, such as the Everest 29 R and T families, deliver a higher level of security by requiring authorization to access blanks for duplication. Improve both administrative and physical security with the application of Primus XP cylinders and gain the option to also employ high security UL 437 cylinders. The new Everest 29 patent enables a key blank that is backwards compatible to legacy Everest keyways allowing Everest 29 keys to work with existing Everest systems aiding the key system migration process.

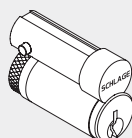
The AD Series and CO Series can also be ordered with other popular Schlage keyways or prepared to receive Falcon® Conventional key-in-lever cylinders or Small Format Interchangeable Core (SFIC) cylinders. Less cylinder options are available to provide compatibility with Conventional, FSIC or SFIC cylinders of other manufacturers including, Sargent®, Corbin Russwin®, Medeco® and Yale®.

## Features and benefits

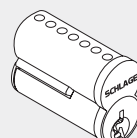
- Multiple credential reader options including keypad, proximity, magnetic stripe, multi-technology<sup>1</sup> and smart card<sup>1</sup>
- Wide variety of finishes and lever styles
- Cylindrical, mortise, mortise deadbolt and exit trim options available
- Compatible with all Schlage Conventional, FSIC and SFIC formatted cylinders including many competitive OEM cylinders
- AD and CO 993 exit trim is compatible with a variety of exit devices including rim style from Von Duprin, Falcon, Sargent®, Precision™, Corbin Russwin®, Dorma® and Yale®



Conventional  
key-in-lever  
PD LD  
LD SAR LD FA7



Full Size  
Interchangeable Core  
RD JD JD SAR  
JD CO6 JD CO7 JD MED  
JD YA6 YD YA7



Small Format  
Interchangeable Core  
GD BD

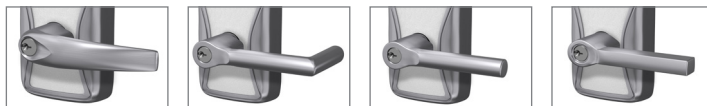
<sup>1</sup> Available on AD Series only.

## Lever and cylinder compatibility

Part number	Description	With cylinder	Pins	Cylinder type			Lever style							
				KIL	FSIC	SFIC	ATH	BRK	BRW	LAT	LON	RHO	SPA	TLR
PD	Schlage® - Everest 29™ S123 (standard)	x	6	x			x	x	x	x	x		x	x
LD	Schlage, Falcon®		6	x			x	x	x	x	x	x	x	x
RD	Schlage - Everest 29 S123 (standard)	x	6		x		x	x	x	x	x	x	x	x
JD	Schlage		6		x		x	x	x	x	x	x	x	x
GD	Schlage Everest 29 R Family Keyways	x	7			x	x	x	x	x	x	x	x	x
BD	Schlage, Falcon, Competitive OEM's		7			x	x	x	x	x	x	x	x	x
LD FA7	Falcon		7	x				x	x	x	x	x	x	
LD SAR	Sargent® (10L+11L)		6	x			x	x	x	x	x	x	x	x
JD SAR	Sargent 6300		6		x		x	x	x	x	x	x	x	x
JD CO6	Corbin® 8000		6		x		x	x	x	x	x	x	x	x
JD CO7	Corbin 8000-7		7		x			x	x	x	x	x	x	x
JD MED	Medeco® 32*0201		6		x			x	x	x	x	x	x	
JD YA6	Yale® 1210 or Medeco 31*0100		6		x		x	x	x	x	x	x	x	x
JD YA7	Yale 1220		7		x			x	x	x	x	x	x	

## Lever styles

Conventional cylinders shown, SFIC and FSIC also available.

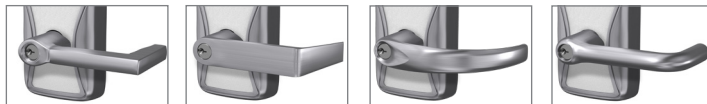


Athens

Boardwalk

Broadway

Latitude



Longitude

Rhodes

Sparta

Tubular

## Finishes

Warm tone finishes



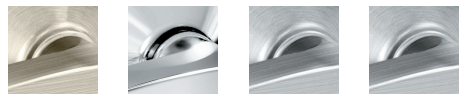
605  
Bright brass

606  
Satin brass

612  
Satin bronze

643e  
Aged bronze

Cool tone finishes



619  
Satin nickel

625  
Bright chrome

626  
Satin chrome

626AM  
Satin chrome with  
antimicrobial

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# CT5000

## Offline controller



## Overview

The CT5000 is an offline single opening controller designed for applications where the security and convenience of offline electronic access control is desired, but an integrated electronic lock may not be practical. It is an ideal solution for narrow stile aluminum store front applications because it can work with a variety of readers, as well as interface with peripheral devices such as automatic operators, electric strikes, and electromagnetic locks.

The CT5000 is compatible with many brands and types of credential technologies including magnetic stripe (tracks 1, 2, and 3), 125 kHz proximity, and 13.56 MHz smart cards. It also supports a variety of card functions including: normal, toggle, freeze, pass through, construction, lockdown and card + PIN applications.

As a complement to your facility's portfolio of CO Series and AD Series devices and networked readers, CT5000 is also capable of upgrade should your needs change to a wireless networked solution.

With the addition of a networked communication board and upgraded firmware, the CT5000 becomes a wireless reader interface capable of communicating via 900MHz signal to an AD Series PIM400. As a wireless reader interface, it can connect to your networked access control system, eliminating the need to run additional wires to the door, saving you time and money on installation.

## Features and benefits

- Three form C relay outputs and three inputs that can include door position and request to exit
- CT5000 strike relay can be configured to fail safe or fail secure
- Upgradable to a wireless reader interface configuration to allow networked communication as your security needs evolve
- Supports up to two parallel Wiegand or Clock & Data reader inputs on a single opening
- Programmable via Schlage® handheld device (HHD) with USB connection or by compatible keypad
- Includes a 15' cable and wallplate connection to enable HHD programming from a remote connection point with a 125' cable option available
- Up to 5000 unique users<sup>1</sup> with audit trail of up to 5000 events<sup>1</sup>
- Up to 16 holidays and 8 time zones enables auto lock and unlock during specified periods with Schlage Express software use
- Door monitoring capable including door position and request-to-exit (remote release)

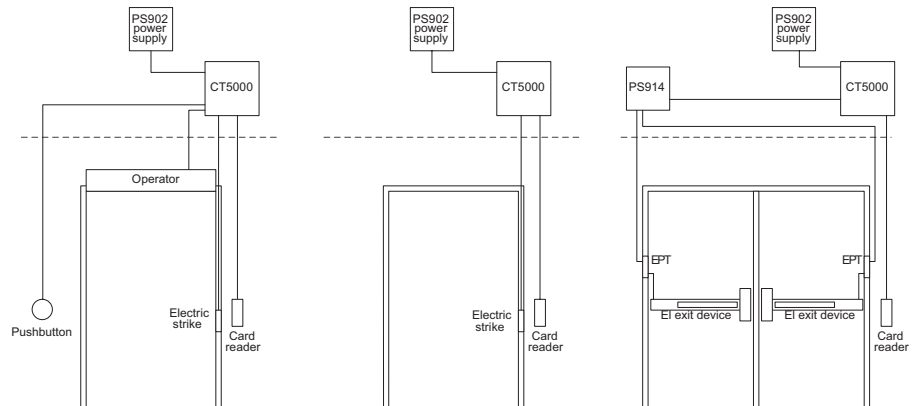


# CT5000 offline controllers

The CT5000 can be used for front door applications with an automatic operator, electric strike and card reader

For narrow stile applications, the CT5000 can be used with an electric strike and card reader

The CT5000 and a card reader along with the Von Duprin 914 Power Supply can control two EL exit devices for double door applications



Note: PS902 and Von Duprin PS914 are sold separately.

## CT5000 offline controller specifications

Users		Up to 5000
Audits		Up to 5000
Power supply		12 VDC or 24 VDC (sold separately, must be UL 294 Class 2 listed power supply)
Voltage range		9.5 VDC to 26 VDC
Connector cable specifications	DC power input	18AWG, 2 conductor (Belden 8760 or equivalent) up to 1000 ft (305 m)
	Credential readers (x2)	Data signals: 22AWG, 6 conductor (Alpha 1296C or equivalent) up to 500 feet (152 meters) Reader tamper signals: 18AWG, twisted pair shielded (Belden 8760 or equivalent) up to 500 feet (152 meters)
	Strike/aux relay outputs	18AWG, 2 conductor (Belden 8760 or equivalent) up to 2000 feet (610 meters)
Relay output tolerances	Strike output relay	Form C relay; 6 amps @ 24VDC or 6 amps @ 20 VAC or 3 amps @ 240 VAC
	Auxiliary output relay	Form C relay; 6 amps @ 24VDC or 6 amps @ 20 VAC or 3 amps @ 240 VAC
	Alarm output relay	Form C relay; 6 amps @ 24VDC or 6 amps @ 20 VAC or 3 amps @ 240 VAC
Operating temperature		-31°F (-35°C) to 151°F (66°C)
Operating humidity		0 - 100% condensing
Certifications		UL 294; Canada UL; FCC Part 15; RoHS
Dimensions		10.43" x 7.28" x 3.79" 26.49 cm x 18.49 cm x 9.63 cm
Programming method		Manually programmed via compatible keypad or computer programmed via SUS software on the Schlage handheld programming device (HHD)
Optional accessories		125 foot USB remote cable connector, PS902, PS904 or Von Duprin® PS914 (sold separately)

## Credential compatibility (software and reader dependent)

Magnetic stripe card	Field configurable track 1, 2, or 3
125 KHz proximity card	Schlage, XceedID® (34X, 35X, 35C, 37X bit formats), HID®, GE/CASI ProxLite™ and AWID® 26 bit format
13.56 Mhz smart card	Schlage and aptiQ® smart cards featuring MIFARE DESFire™ EV1 HID ICLASS® CSN only 26 bit format

The following readers are UL 294 listed for use with the CT5000:

- Essex Electronics model KTP-162
- Mercury Security models MR-5 and MR-20
- Schlage/XceedID model PR10
- Schlage/aptiQ models MT11, MT15, MTK15, MTMS15, MTMSK15, and SM10

## About Allegion

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# Schlage Utility Software (SUS)

on the Handheld Device (HHD)



## Overview

Schlage Utility Software (SUS) is designed specifically for use on the Handheld Device (HHD) as the link between your access control management software and Schlage AD/CO electronic offline and networked locks and accessories.

This solution consolidates and simplifies programming and managing your access control system. The SUS and HHD are used to initialize, configure and test product operation, and also provides an easy way to manage people, audits, locks and other network panel interface devices for simple access control. The intuitive screen layout for the SUS provides easy navigation during use.

For offline products, the SUS is utilized to transfer access control data, such as authorized user lists, via the HHD to the locks. The SUS is also utilized to download audit trail information from offline devices to the HHD and then transfer that data to the access control management software.

In addition, the SUS can configure other networked electronic devices (including PIM and PIB) and update firmware revision updates to the devices, as desired.

The HHD connects with Schlage AD Series electronic locks and accessories via a USB interface and utilizes active Synch or Win mobile device manager to communicate with your PC via the USB port. The HHD is also able to connect to the SPED, KC2, CM, CL, CT5000, CT1000, CL Controller and WA Series PIMs via a serial cable connection.

## Features and benefits

- Handheld Device with Schlage Utility Software installed
- Touch screen operation
- Initialize lock and accessories with SUS
- Configure and test devices
- New device template simplifies configuration

## HHD compatible devices and required cable and adaptors

Devices	Cable and adaptors
AD Series and CO Series locks PIM400, PIB300, WRI400, ECK400, GCK400, WPR400, TK400 and CT5000 controller	HH-USB (included in HHD-kit)

## Ordering information

- **HHD Kit -USB** – Handheld device with SUS installed and HH-USB cable
- **HH-USB** – USB cable only

For replacement HHD devices with a serial cable connection, please contact technical support at 877.671.7011.

## Features and specifications

### Schlage Utility Software

- Initialize lock and accessories
- Field configure devices
  - Credential reader formats
  - Lock function
  - Unlock period
  - Failure mode
  - Audible alarm on/off
- Offline devices
  - Manage up to 100 unique door files
  - Retrieve audit trails from up to 100 devices
- Networked devices
  - Communication settings
  - Validate status monitor
- Service and diagnostics
  - Battery status
  - Validate hardware and software revision
  - Troubleshooting status signals
  - Firmware upgrades

### HHD specifications

- 3.5 inch display
- Touch screen with backlit keypad
- Operating system: Windows Mobile 5.0
- Memory: 128 MB RAM / 256 MB ROM
- Battery: rechargeable Li-ion
- Dimensions (H x W x D): 5.1" X 2.8" X 0.65" (13.0 cm x 7.2 cm x 1.7 cm)
- Weight: 0.42 lbs (190 g)
- 5 ft (1.2 m) drop to steel surface, 2 drops per 6 sides

### How-to-videos

- Specially formatted how-to videos for viewing on the HHD are available online
- They can be downloaded from [www.schlage.com/support](http://www.schlage.com/support)
- If additional storage is needed, a standard mini SD memory card can be used
- Videos should be saved on the SD card or in a new folder on the device rather than in the shared sync folder or root directory
- Includes AD Series how-to instructions for door prep, installation, reader changes, etc.

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# Schlage Express™

Offline Access Control  
Software

## Overview

Schlage Express™ Offline Access Control Software provides a simple and effective means to manage access control within your facility. It supports Schlage offline locks including the CO-200, CO-220 and AD-200, as well as the CT5000 controller. Schlage Express is recommended for smaller facilities with basic access control needs.

It allows you to quickly enter or delete users and access points. It is compatible with a variety of credential options including PIN codes, iButtons, magnetic stripe, proximity and smart cards. For added security, dual authentication (card + PIN) is also supported.

Reporting capability is available to show audit trails retrieved, access privileges granted, and time functions established by either user or door.



## Features and benefits

- A variety of credential functions are supported including normal, toggle, one time and pass through
- Auto unlock schedules - allows weekly repeating for automatic locking and unlocking of doors (up to 16 defined per system; up to 8 assigned per lock)
- Supports magnetic stripe, proximity and smart cards
- Supported devices include CO-200, CO-220, AD-200, CM, KC-2, CT-1000, CT5000 and BE367
- Supports Windows XP, Windows 7 and Windows 8  
Please note that Schlage Express Software is NOT supported on the Home and Starter Versions of the Windows Operating Systems.
- User times zones- limits the hours and days a user can access assigned points (Up to 8)
- Holidays - suspends normal operations for user defined periods per door during non-normal days (Up to 16)
- Users/audits and lock support
- 2,000 Users/audits and 50 locks/devices
- 1,000 Users/audits and 100 locks/devices
- Supports 12 button keypad with up to 6 digit PIN codes
- Duplicate PIN notification feature

## Specifications

Hardware	Intel Pentium II processor (Pentium III or IV recommended), CD-ROM, mouse or compatible pointing device, VGA or Super VGA monitor, keyboard
Hard disk space	250 MB for software; will require additional space for stored data
Memory	256 MB RAM minimum or the memory required for the operating system, whichever is greater
Operating system	Microsoft Windows 10, Windows XP, Windows 7 and Windows 8 Please note that Schlage Express Software is NOT supported on the Home and Starter Versions of the Windows Operating Systems.
Reports with the built-in viewer Internet Explorer 6 or higher must be installed.	
Required for programming	For offline locking system programming using a Schlage approved HHD device, the following is required: <ul style="list-style-type: none"><li>▪ Available USB port on the PC</li><li>▪ Approved HHD device with installed communications software and interface cables from Schlage</li></ul> For offline legacy locking system programming done directly from the PC, the following is required: <ul style="list-style-type: none"><li>▪ Available USB port on the PC</li><li>▪ Programming interface cables</li></ul>

## Ordering information

- **SXPR-SFT-1** - Schlage Express software only

### Accessories

- **HHD KIT** - Handheld device to manage Schlage offline locks (USB cable included for managing AD Series and CO Series locks)
- **HHD-USB** - Additional or replacement cable used to connect HHD to AD Series and CO Series products
- **HH-Serial** - Serial cable used in conjunction with HHD KIT and CIP for managing legacy Schlage offline locks
- **PS12112** - Computer interface module used in conjunction with HH-Serial cable for managing legacy Schlage offline locks
- **P101203** - Computer Interface module with ibutton reader used in conjunction with HH-Serial Cable for managing legacy Schlage offline locks
- **P394548** - Female/female serial cable. Used to connect computer interface module to laptop/PC
- **SDB9USBCBL** - Six inch cable adapter allows a serial port device to be used with a USB port device (for use with PS12112)
- **CRP2** - Proximity credential enrollment reader. Used to read proximity data for enrollment into Schlage Express 4.0 and higher
- **CRM2** - Magnetic stripe credential enrollment reader. Used to read magnetic stripe data for enrollment into Schlage Express 4.0 and higher

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# Schlage Express™

Offline access control  
software capability matrix

	CO-200 & CO-220	AD-200
<b>System capacity at lock</b>		
Number of users or audits/locks	2,000 users/audits, 50 lock max.	2,000 users/audits, 50 lock max.
	1,000 users/audits, 100 lock max.	1,000 users/audits, 100 lock max.
Holidays	16	16
1st person in	Yes	Yes
Time zones	8	8
Auto unlocks	8	8
<b>Reader</b>		
Keypad only	Yes	Yes
Magnetic stripe	Yes	Yes
Proximity	Yes	Yes
Multi-technology - 125 kHz prox and 13.56 MHz smart card	No	Yes
Card + PIN	Yes (3 to 6)	Yes (3 to 6)
<b>Status monitors</b>		
Mechanical key override (ATK)	Yes	Yes
Battery status	Yes	Yes

NOTE: Shaded boxes indicate features that are only available in Express v4.0 or higher.

Previous versions (Express 3.5.7 and older) support 1000 users/audits and 100 locks, and do not include AD Series and CO Series software labels.

	CO-200 & CO-220	AD-200
<b>Lock functions</b>		
Classroom/storeroom	CO-200 only	Yes
Office/toggle	CO-200 only	Yes
Privacy	CO-200 only	Yes
Apartment	CO-200 only	Yes
Classroom security	CO-220 only	No
<b>Credential attributes</b>		
Normal credential	Yes	Yes
Toggle credential	Yes	Yes
Pass thru credential	Yes	Yes
Visitor/one time use credential	Yes	Yes
Freeze credential	Yes	Yes
Lock down credential	No	No

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# Electro- mechanical Solutions



This section of the Electronic Access Control catalog covers LCN, Schlage, Von Duprin and Ives products which can be equipped with electronic features for added security and functionality.

## Electrified locks

### Overview

The mechanical lock is one of the most basic aspects of electronic access systems; however, they are as important as any other component of such a system. Mechanical security components must be able to stand up to constant wear and tear, and in some cases be durable enough to handle direct attack or abuse. Without such durability and integrity, the building's assets and people are at risk.

### Features

The two primary Schlage commercial lock families are the L Series Grade 1 mortise lock and the ND Series Grade 1 cylindrical lock. Both the L and ND series are available in mechanical, wired electrified and wireless electronic configurations so that an entire project can be suited with a single lock family for a consistent look and feel. The features outlined below will focus on the wired electrified offerings of these two series.

The wired electrified Schlage L and ND locks have numerous advantages due to their use of motors instead of solenoids in their locking mechanisms. In regards to efficiency, the locks have a very low maximum current draw - saving money by allowing more locks on a single power supply. They also have an extremely low holding current - only 10mA; thus, operating more efficiently and eliminating the "hot levers" found in other locks. Motor

driven locks are also inherently more quiet than the solenoid counterparts.

Flexibility is also enhanced with the wired electrified Schlage L and ND. A single lock can support 12 or 24V applications, and operating mode - electrically locking (aka fail safe) or electrically unlocking (aka fail secure) - can easily be selected with a switch on the chassis. Request-to-exit, a popular option used on about 60% of locks, can even be "plugged in" at a later time. Combined, this flexibility allows a single electrified L or electrified ND lock to replace 8 traditional electrified locks - thus ensuring the right lock is always available at the job site or on the work truck. Additional options and details are available on the following product-specific pages.

### Benefits

Years of engineering and design have been put into the L Series and ND Series from Schlage. This means with both sets of locks, strength, dependability, and flexibility are the best on the market today. Even after purchasing an expensive electronic access control system, there can still be a point of weakness at the opening if the mechanical lock does not function properly or stand up to abuse. Moreover, many tenants are depending on the mechanical aspects of an opening to be completely functional every day. When so much is at stake, you can rely on Schlage products to be dependable, strong, and flexible.

## ND Series and L Series comparison

	ND Series	L Series
Handing	Non-handed	Field reversible
Door thickness	1 5/8 in to 2 1/8 in standard 1 3/8 in to 6 in optional without RFQ	1 3/4 in (44 mm) standard, 1 3/8 in (35 mm) to 2 1/2 in (64 mm) optional. Over 2 1/2 in (64 mm) door ranges vary by function. Specify door thickness other than 1 3/4 in
Backset	2 3/4 in standard, 2 3/8 in, 3 3/4 in and 5 in optional	2 3/4 in (70 mm) only
Levers	Pressure cast zinc, plated to match finish symbols	Forged brass, bronze or cast stainless steel.
Strike	ANSI curved lip strike 1 1/4 in x 4 7/8 in x 1 3/16 in lip to center standard	ANSI curved lip strike 1 1/4 in x 4 7/8 in (32 mm x 124 mm) x 1 3/16 in (30 mm) lip to center with dust box standard
Cylinders and keys	6-pin solid brass cylinder is standard with Everest 29 S123 keyway furnished as default. Furnished with 2 nickel silver keys. Additional Schlage keyways available.	6-pin solid brass cylinder is standard with Everest 29 S123 keyway furnished as default. Furnished with 2 nickel silver keys. Additional Schlage keyways available.

## Exit devices – electrical options

### Overview

Exit devices are a critical part of the fire and life safety egress system and provide safe and reliable service when properly applied and maintained. Von Duprin's portfolio of exit device hardware features a variety of options that allow the device to be controlled electronically. When an electrical option is used, the exit device integrates into any access control system.

### Features

There are a variety of electrical options that can be applied to a Von Duprin exit device. Electric latch retraction allows for the remote unlatching of exit devices. Monitoring switches, such as RX and LX, are used to signal the state of an opening. Delayed egress and alarmed exits, such as the Chexit and ALK exit, help to deter unauthorized use of certain openings. Von Duprin also offers a variety of electrified exit trims that work seamlessly with the exit device. For a complete view of the range of available Von Duprin electrical options, please see the Von Duprin exit device catalogs.

### Benefits

Applying electrical features to your Von Duprin exit devices allows you to remotely control, monitor and delay or alarm latch retraction, while allowing safe and efficient egress.

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## Door control – electrical options

### Overview

LCN has automatic operator solutions to meet the full array of ADA accessibility and door control needs, including low-energy pneumatic and electric designs. What's more, they utilize several patented components, and are all assembled by hand in the United States. LCN's comprehensive portfolio of solutions help building owners bridge the gap between business objectives and ADA accessibility, without sacrificing other needs related to high use and abuse, design, fire and life safety and security.

### Features

LCN pneumatic auto equalizer systems use the power of pressurized air to do the work of automatically opening the door. A basic pneumatic system consists of an automatic operator to provide the door control, a control box that contains the valves and electrical timing circuits, actuators to start the system and a compressed air source. Electrohydraulic auto equalizer products can operate as normal rack & pinion door closers or, at the touch of a button, open automatically. An integrated digital control suite provides all electrical control functions. Two surface mount models are available; the 4630 Series mounts on the pull side of the door and the 4640 Series mounts on the push side of the door. LCN's electromechanical products are designed primarily for automatic opening applications that occasionally require manual opening. A control box provides all electrical functions. Surface mounted and overhead concealed mountings are available.

### Benefits

LCN automatic operator solutions have been the proven standard in schools and health care facilities for over 20 years and are designed to meet ADA regulations for accessible openings. They are easily retrofitted into existing doors and frames, as well as new construction.

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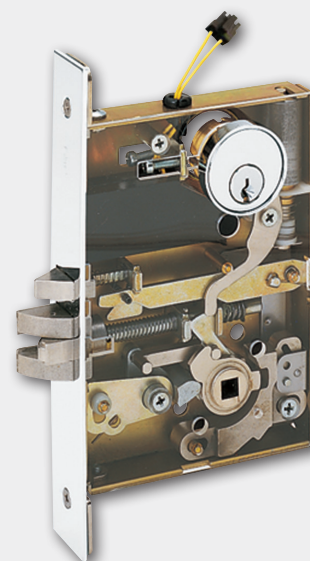


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# L909x Series

## Electrified mortise lock



## Overview

The most complex electronic access systems still rely on mechanical hardware to operate properly. Advanced electronic technology can go to waste without adequate mechanical locking strength and functionality.

The Schlage L909x series of electrified mortise locks serves as the mechanical component to an electrified locking solution. The lock can be integrated into an electronic access control system or be used as a stand-alone solution with a buzzer or other device as the controller.

The L909x series offers exceptional flexibility and power savings. The lock automatically adapts to 12 or 24V DC input, and a case-mounted switch allows selection between EL and EU operation. Request to exit is modular and can be added without opening the lock case. 0.4amps maximum current draw allows multiple units on a single power supply, while 0.01amps holding current eliminates "hot levers" in EL applications.

Utilizing the same levers, trims and options as the Schlage L-series mortise, the L909x integrates as seamless with the mechanical component of the project as the electronic. And because it is based on the Schlage L mortise, it carries the same proven record of performance, strength and durability from the most trusted name in the industry.

### Recommended applications

The L909x Series Electrified Mortise Lock is useful for many applications, including but not limited to:

- Security control centers
- Cashier rooms
- Fire safety exits
- Equipment rooms
- Hazardous material storage

## Features and benefits

- Universal input voltage- accepts 12V or 24V DC for installation flexibility
- User selectable fail safe/fail secure through use of switch on lock case
- Low maximum current draw allows multiple locks on a single power supply
- Low holding current produces minimal heat, eliminating "hot levers" in electrically locking applications
- Modular RX design allows RX to be added at a later time without opening the lock case
- UL listed for 3 hour fire door

### Available Options:

- Request to Exit (RX)
- Latchbolt Monitor (LX)
- Door Position Sensor (DPS)  
- non-deadbolt functions only
- Deadbolt Monitor (DM)  
- deadbolt functions only

## L Series mechanical specifications

Handing	Field reversible
Door thickness	1 3/4" (44 mm) standard, 1 3/8" (35 mm) to 2 1/2" (64 mm) optional. Over 2 1/2" (64 mm) door ranges vary by function. Specify door thickness other than 1 3/4".
Backset	2 3/4" (70 mm) only
Armored front	Standard: 1 1/4" x 8" x 7/32" (32 mm x 203 mm x 6 mm) Optional: 1 1/16" x 8" x 7/32" (27 mm x 203 mm x 6 mm)
Case size	4 7/16" x 6 1/16" x 1" (113 mm x 154 mm x 25 mm)
Spacing	Knob or lever to cylinder, 3 7/8" (98 mm); knob or lever to thumbturn hub, 2 11/16" (68 mm)
Bolts	1" (25 mm) throw stainless steel deadbolt and 3/4" (19 mm) throw stainless steel latch with anti-friction tongue
Cylinders and keys	6-pin solid brass cylinder is standard with Everest 29 S123 keyway furnished as default. Furnished with 2 nickel silver keys. Additional Schlage keyways available.
Keying options	Available in full size interchangeable core (FSIC) and small format interchangeable core (SFIC). Also available less cylinder and less FSIC to allow for Primus XP cylinder usage.
Strike	ANSI curved lip strike 1 1/4" x 4 7/8" (32 mm x 124 mm) x 1 3/16" (30 mm) lip to center with dust box standard
Trim	Five roses (sectional) and three escutcheons available
Levers	33 available lever designs

## L Series electronic specifications

Voltage	Auto-detects 12/24V DC operation
Peak current	0.4 amps
Holding current	0.010 amps
Operating temperature	Maximum +140°F (+60°C) Minimum -22°F (-30°C)
Interfacing devices	HandReaders, wall switches, security consoles, access card readers, thermo-sensitive devices, smoke and fire alarms, telephone access controls, automatic time devices and computerized controls
Micro switch electrical rating for request-to-exit (RX) function and latchbolt monitor (LX)	3 amps, 125V AC; 2 amps, 30V DC

## L Series electrified functions

No Cylinder	L9090EL/EU Electrically locking/unlocking outside lever L9091EL/EU Electrically locking/unlocking both levers
Outside Cylinder	L9092EL/EU (Replaces L9080EL/EU) Electrically locking/unlocking outside lever L9093EL/EU Electrically locking/unlocking both levers
Inside & Outside Cylinder	L9094EL/EU Electrically locking/unlocking outside lever L9095EL/EU (Replaces L9082EL/EU) Electrically locking/unlocking both levers

## L Series electrified deadbolt functions

Outside Cylinder	L9492EL/EU Electrically locking/unlocking outsider lever L9493EL/EU Electrically locking/unlocking both levers
Inside & Outside Cylinder	L9494EL/EU Electrically locking/unlocking outsider lever L9495EL/EU Electrically locking/unlocking both levers

Note: See pricebook for additional details.

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## ND Series

Electrified cylindrical lock



### Overview

Electronic access control systems can be installed in a variety of applications, but they always require a mechanical lock to ensure safety and security needs are met.

The Schlage ND cylindrical lock can be equipped with an electrified locking option. It can be quickly and easily installed and integrates with various key systems for field adaptability.

The electrified ND lock serves as the mechanical component to nearly any electronic access system. With the electrified option, the ND is wired to two sources, a regulating device and a power source. A regulating device such as a hand or card reader signals the ND Series to lock or unlock, while the power source serves as the energy source to change the status of the lock.

When it comes to access control, mechanical components are just as important as their electronic counterparts. The Schlage ND Series provides versatility and easy installation to complete your access control system.

### Features and benefits

- Vandlgard® option prevents damage to internal lock when lever is subjected to abuse
- Change operation mode between Electrically Unlocking (EU or Fail Secure) or Electrically Locking (EL or Fail Safe) by simply flipping a switch on the chassis
- Low holding current for EL applications provide energy savings and avoids heated levers
- Exceeds ANSI A156.2 series 4000 Grade 1 torque requirements
- Auto-detects 12 through 24V DC input
- Extensive options for lever styles, finishes and functions
- Request-to-exit functionality can be easily upgraded in the field with the following kit part #: N123-062

## ND Series mechanical specifications

Handing	Non-handed
Door thickness	1 <sup>5</sup> / <sub>8</sub> " to 2 <sup>1</sup> / <sub>8</sub> " standard including Vandlgard
Backset	2 <sup>3</sup> / <sub>4</sub> " standard, 2 <sup>3</sup> / <sub>8</sub> ", 3 <sup>3</sup> / <sub>4</sub> " and 5" optional
Faceplate	Brass, bronze or stainless steel. 1 <sup>1</sup> / <sub>8</sub> " x 2 <sup>1</sup> / <sub>4</sub> " (29 mm x 57 mm) square corner, beveled.
Lock chassis	Zinc plated for corrosion resistance.
Latchbolt	Steel, 1/2" (12 mm) throw, deadlocking on keyed and exterior functions. 3/4" (19 mm) throw anti-friction latch available for pairs of fire doors.
Exposed trim levers	Pressure cast zinc, plated to match finish symbols.
Roses	Brass or bronze.
Strike	ANSI curved lip strike 1 <sup>1</sup> / <sub>4</sub> " x 4 <sup>7</sup> / <sub>8</sub> " x 1 <sup>3</sup> / <sub>16</sub> " lip to center standard.
Cylinders and keys	6 pin solid brass cylinder is standard with Everest 29 S123 keyway furnished as default. Furnished with 2 nickel silver keys. Additional Schlage keyways available.
Keying options	Available in full size interchangeable core (FSIC) and small format interchangeable core (SFIC). Also available less cylinder and less FSIC to allow for Primus XP cylinder usage.
Lever design and finish	All ND levers and all ND finishes available

## ND Series electronic specifications

Voltage	Auto-detects 12 through 24V DC operation
Peak current	.23 amps (230mA)
Holding current	0.01 amps (10mA)
Operating temperature	Maximum +120°F (+49°C) Minimum -32°F (0°C)
Micro switch electrical rating for request-to-exit (N523-194) function	2 amps 30V DC

## ND Series electrified functions

No cylinder	ND12DEL: Electrically Locking/Fail Safe ND12DEU: Electrically Unlocking/Fail Secure
Outside cylinder	ND80PDEL: Electrically Locking/Fail Safe ND80PDEU: Electrically Unlocking/Fail Secure
Vandlgard	ND96PDEL: Electrically Locking/Fail Safe ND96PDEU: Electrically Unlocking/Fail Secure

Note: See pricebook for additional details.

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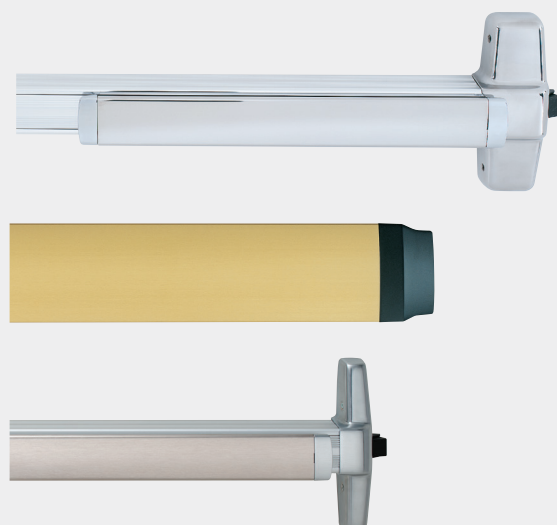


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**VON DUPRIN®**

# Quiet Electric Latch Retraction-QEL

Featuring 98/99, 94/95  
and 33A/35A series  
exit devices



## Overview

Quiet electric latch retraction (QEL) provides electronic control of an exit device for environments where limited operational noise is desired. The QEL option is Von Duprin's solution of choice for hospitals, libraries, museums and theaters where ambient noise can be disruptive. It is available on all Von Duprin 98/99, 94/95 and 33A/35A series exit devices.

These devices always provide mechanical egress. The electrified latch retraction can also be activated by an access system or building automation system to unlatch the exit device momentarily. Often the QEL is used with a credential reader and access control system to unlock the door momentarily for authorized users.

The QEL can also be configured to electronically retract the latch for an extended period of time to allow free entry. This is a convenient alternative to mechanical dogging. If manual dogging is required, the hex dogging option is available, to order specify HD-QEL. Special center case dogging is also available for 98/99 rim and vertical systems, specify SD-QEL.

The QEL option is available on panic devices and fire rated devices. Fire rated openings have several additional requirements. They must be self latching and self closing. To satisfy these requirements the QEL must be paired with an automatic operator and under the control of an automatic fire alarm system when used on fire rated openings.

## Features and benefits

- QEL option available on all 98/99, 94/95 and 33A/35A series exit devices
- Energy efficient motorized latch retraction utilizes standard 2 amp power supply, enabling longer wire runs from power source
- Quiet operation in both mechanical and electronic states
- Modular design allows for a simplified installation
- On-board installation and troubleshooting diagnostics built into device
- Auto adjust latch retraction – automatically adjusts latch throw and pull
- Pushbar is pulled in electronically for quieter operation when dogged
- Vandal resistant – detects and responds to events of attack and tampering



## Specifications compliance

- Devices are BHMA Certified to ANSI/BHMA A156.3 (2001) Grade 1 for Exit Devices
- Devices are UL and cUL Listed as "Panic Hardware" (UL 305) and as "Fire Exit Hardware" (UL 10C)
- The QEL Conversion Kit is UL Classified under "Accessories for Single-Point Locks and Latches and Fire Exit Hardware" (UL 10C)

## Electronic specifications

### QEL electrical load

Voltage	24 VDC
Current	1.0 A Inrush (0.5 sec) 0.14 A Holding

### QEL wire run lengths

Distance (one way)	Wire gauge
200'	18 AWG
320'	16 AWG
500'	14 AWG
800'	12 AWG

## Accessories

The QEL has a low inrush current = 1.0 amps, so it can be used with standard Schlage power supplies. When powering multiple components, verify that the amperage requirements of all components combined does not exceed the power supply output rating, see table below for output ratings.

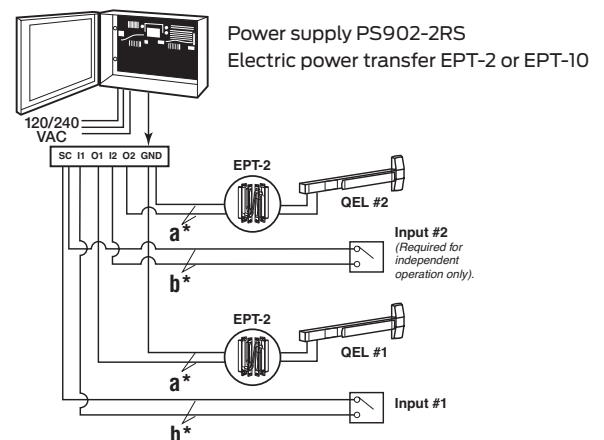
Schlage PS902	Schlage PS904	Schlage PS906
up to 2 amps	up to 4 amps	up to 6 amps

The QEL device is compatible with the following equipment: PS900 Series power supplies - PS902, 904, 906, 914; 900 Series Option Boards - 900-2RS, 900-4R, 900-4RL, 900-2Q; PS873 Power Supply including 871-2, 871-2Q, 873-4TD/AO Option Boards. The power transfer is also sold separately. Please refer to Von Duprin catalog for more information on EPT-2/EPT-10 power transfers and PS900 series power supplies.

## How to order

- Standard** – Use prefix QEL, example QEL99L.
- Special Center Case Dogging** – Use prefix SD-QEL, example SD-QEL99L.
- Hex Dogging** – Use prefix HD-QEL, example HD-QEL99L.

## Popular application



## About Allegion

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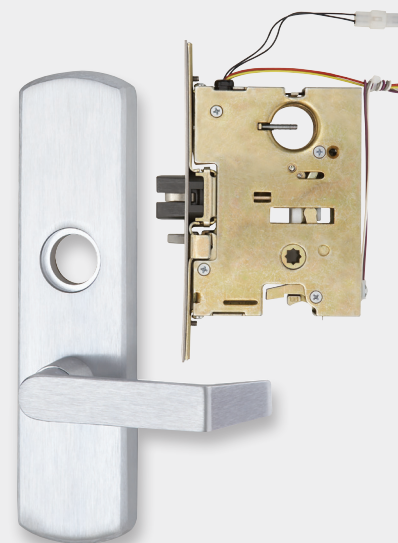


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**VON DUPRIN®**

## E996L, E7500

Electrified trim, electric mortise lock



### Overview

#### **E996L- Electrified breakaway lever trim**

E996L Electrified Breakaway lever trim provides remote locking and unlocking capabilities while incorporating the patented Breakaway trim design.

The 24VDC solenoid can be energized from a distant controller, thus allowing access control of the opening. The control of stairwells in high-rise buildings is a common application for this trim. When electrically unlocked the unit operates as a normal lever trim. When electrically locked, the lever feels locked, but when more than 35 pounds of torque pressure is applied, the Breakaway lever feature engages.

The E996L is available in standard either in a fail safe (FS) or fail secure (FSE) condition, but can also be field converted where allowed. The trim can be ordered with a device, added to an existing 98/99 series device application, or a conversion kit can be added to an existing 996L Breakaway lever trim. On new construction applications, the E996L trim will require less door prep.

The E996L is available with a blank escutcheon (BE) function, or with cylinder operation for night latch (NL) function.

The E996L electrified trim replaces the current "E" electric feature on 98/99 series rim devices. Consult factory for requirements.

#### **E7500- Electric mortise lock**

The electric mortise lock device has all the versatility and advantages of the standard mortise lock device, plus the advantage of being electrically controlled by a remote switching device, an access control system or an automatic fire alarm system. The device features the 7500 mortise lock. The E7500 controls the locking of the outside trim. When unlocked, the door remains latched, preserving the fire rating of the door and making it particularly useful where codes permit locking but require unlocking during a fire emergency. The outside trim cylinder retracts the latch bolt for mechanical override of night latch function. Only available with TP, K or L functions.

The E7500 lock contains a SPDT signal to monitor the outside trim condition (locked or unlocked) and a second SPDT signal switch to monitor the latch bolt.

### Features and benefits

#### **E996L**

- Fail safe or fail secure, can also be converted in the field
- Conversion kits available to add to existing 996L trim
- Available with blank escutcheon function or cylinder operation for night latch function

#### **E7500**

- Field reversible handing
- 24 VDC continuous-duty solenoid
- Fail safe or fail secure optional<sup>1</sup>

<sup>1</sup> Some fire codes will require fail safe (FS) operation for stairwell doors. Be sure to specify the correct operation for your application.

## E996L specifications

Solenoid	24VDC
Solenoid draw	0.22 AMPS

### To order, specify

Note: To order, please reference Von Duprin catalog and price book

- Use "E" prefix, example E996L
- When ordering with device specify trim series with "E" prefix, example 9927L-BE 3' US26D E996L.
- Device type, R/V (rim/surface or concealed vertical rod) or M (mortise)
- Fail Safe (FS) or Fail Secure (FSE)
- RHR is furnished standard if not specified. Field reversible.
- Lever style (06 lever is furnished standard)
- Finish: US3, US4, US10, US10B, SP313, US26, US26D, SPBLK, US15

## E7500 specifications

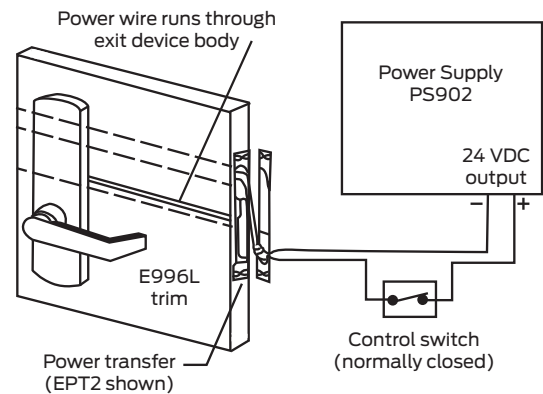
Solenoid	.60 Amps @ 12VDC .30 Amps @ 24VDC
Each switch	Up to 2.0 Amps @ 24VDC Maximum

The E option does not include the power transfer from door to frame, the power supply or the control operator. (Refer to EPT-10 and PS902 or PS914 power supply)

### To order, specify

Note: To order, please reference Von Duprin catalog and price book

- Use prefix "E," example E9975
- FS or FSE
- Voltage and current



### E996L Electrical wiring

- Power input for E996L is 24 VDC
- Two wires on the trim are non-polarized (18 AWG minimum)

### Standard features:

- Field reversible handing
- 24 VDC continuous duty solenoid

### Optional features:

- Fail safe (locked when energized, unlocked when de-energized or during power failure). Specify with suffix "FS."
- Fail secure (unlocked when energized, locked when de-energized or during power failure). Specify with suffix "FSE."
- 24 VAC (with SO option)
- 12 VDC
- 12 VAC (with SO option)

Note: Some fire codes will require "Fail Safe" (FS) operation for stairwell doors. Be sure to specify the correct operation for your application.

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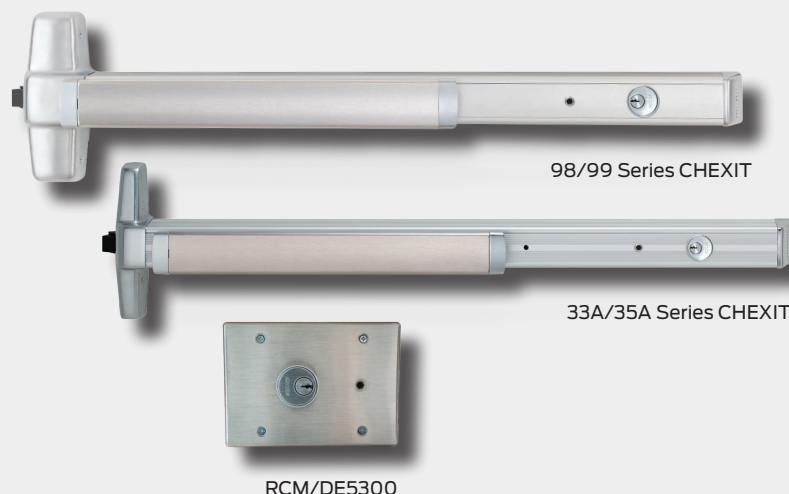


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**VON DUPRIN®**

# Delayed egress systems

CHEXIT, RCM & DE5300



## Overview

The Von Duprin® CHEXIT is a delayed egress option available on all 98/99, XP98/99 and 33A/35A series exit devices. It is commonly used in behavioral health, memory care, and maternity applications to prevent patient abduction or elopement and in retail stores for asset protection. All control inputs, auxiliary locking, local alarm and remote signaling outputs are self-contained. The CHEXIT can easily be integrated with access control, fire prevention and infant protection systems.

The standard CHEXIT device sounds an alarm and keeps the door secured for 15 seconds following an exit attempt with immediate release upon fire alarm. Numerous configurable settings allow the CHEXIT to be customized based on specific application or code requirements.

Recently updated, the improved design of the CHEXIT makes installation and maintenance easier. The new motor driven blocking actuator is quiet and energy efficient, with an input current of only 1.25 amps and wire run up to 500 feet from the power transfer to power supply (14 AWG). Additional options were added including indefinite release delay to address 2015 IBC requirements for controlled egress.

The Remote CHEXIT Module (RCM) provides the same functionality for smaller door sizes by placing electronic components in a control box. Likewise, the DE5300 utilizes a control box, RX-LX low current request to exit panic device and a Schlage direct hold electromagnetic lock.

## Features and benefits

- Available on all 98/99, XP98/99 and 33A/35A series exit devices
- Redesigned for easy and cost effective installation and maintenance
- Motor driven blocking actuator provides quiet and energy efficient operation
- Flexible field configurable functions, including: nuisance delay 0, 1, 2 or 3 seconds, audio sound level high/low, power up setting armed/disarmed
- Trim actuator/input for outside trim connection with selectable fail safe/secure setting
- Secure status relay output
- RCM and DE5300 available to accommodate a variety of door configurations and applications
- UL 294 Listed and meets 2015 IBC 1010.1.9.7 Delayed Egress and 1010.1.9.6 Controlled Egress and NFPA 7.2.1.6 Special Locking Arrangements

(with motor driven blocking actuator)

**Available for 33A/35A, 98/99 and XP98/99 Series devices**

The Von Duprin CHEXIT device is designed for controlled egress applications. It is UL 294 listed and meets 2015 International Building Code (IBC) sections 1010.1.9.7 Delayed Egress and 1010.1.9.6 Controlled Egress and National Fire Protection Associations (NFPA) sections 7.2.1.6 Special Locking Arrangements. All control inputs, auxiliary locking, local alarm and remote signaling outputs are self-contained in the CHEXIT assembly. Numerous configurable options allow the device to be customized for the specific code or application requirements. The standard CHEXIT device sounds an alarm and keeps the door secured for 15 seconds following an exit attempt with immediate release upon fire. Included with each device is a 6" x 20" decal for application on the door reading "PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS".

### Minimum door opening sizes for CX devices

Consult factory for other size requirements.

Device	3' (914mm) Length	4' (1219mm) Length
CX33A/35A	2'10 3/4" (883mm)	3'4 3/4" (1035mm)
CX3327A/3327A-F/3527A/3527A-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX3347A/3347A-F/3547A/3547A-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX3348A/3348A-F/3548A/3548A-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX3349A/3349A-F/3549A/3549A-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX3350/3350WDC-F/ 3550/3550WDC-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX98/98-F/99/99-F	2'10 3/4" (883mm)	3'4 3/4" (1035mm)
CX-XP98/XP98-F/XP99/XP99-F	2'10 3/4" (883mm)	3'4 3/4" (1035mm)
CX9827/9827-F/9927/9927-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX9847/9847-F/9947/9947-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX9848/9848-F/9948/9948-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX9849/9849-F/9949/9949-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX9850/9850WDC-F/ 9950/9950WDC-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX9857/9857-F/9957/9957-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)
CX9875/9875-F/9975/9975-F	2'10 1/4" (870mm)	3'4 1/4" (1022mm)

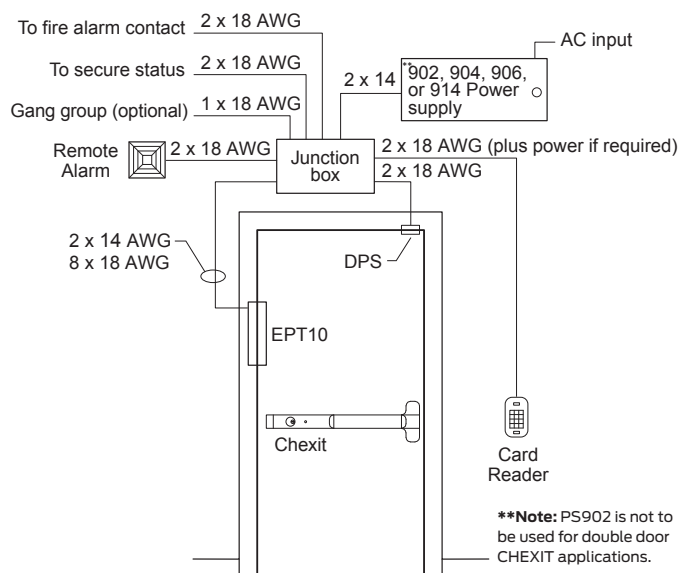


Figure 1. Riser Diagram, Single Door

## Electrical specifications

### Specifications / Power requirements\*

Input voltage – 24VDC
Input current inrush – 1.25A
Input current holding – 390mA
Alarm relay and Secure relay contact ratings – 24VDC, 1A
Fire alarm, Inhibit and Door position switch inputs require normally closed dry contacts.

### Power supply information for CX devices with motor driven blocking actuator\*:

Power supply	Maximum number of devices*
PS902 (up to 2 amps)	1 CHExIT device
PS904 (up to 4 amps)	3 CHExIT devices
PS906 (up to 6 amps)	4 CHExIT devices
PS914 (up to 4 amps)	4 CHExIT devices

When powering multiple components, verify that the amperage requirements of all components combined does not exceed the power supply output rating. Consult Installation Instructions for proper wire gauge and wire run requirements. Exceeding the recommended devices and/or not following Installation Instructions may void your warranty. For more information call Customer Care at 877-671-7011.

## How to order\*

1. Prefix product description number "CX". Ex: CX99L
2. Specify option. Ex: CX-RCM or CD-CX
3. Door size other than 3' (914mm).
4. Door thickness other than 1 3/4" (45mm).
5. Finish.
6. Handing, LHR or RHR. Required with "CD" option.

\*Note: The information listed in these pages reference the power supply and operating requirements for the redesigned CHEXIT with motor driven blocking actuator that launched August 24, 2015. For information on devices built previous to August 24, 2015, please contact Customer Care at 877-671-7011.

## RCM Remote Chexit Module

Designed to provide the concept of the Chexit delayed exit system for door sizes smaller than the standard device can accommodate. The Chexit module is installed in a control box and mounted in a remote location. Features and functions of the standard Chexit exit device are available on the RCM.

### Minimum door opening sizes for RCM devices

Consult factory for other size requirements.

Device	3' (914mm) Length	4' (1219mm) Length
CX-RCM33A/35A	2'5" (737mm)	2'11" (889mm)
CX-RCM3327A/3327A-F /3527A/3527A-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM3347A/3347A-F /3547A/3547A-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM3348A/3348A-F /3548A/3548A-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM3349A/3349A-F /3549A/3549A-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX3350/3350WDC-F/ 3550/3550WDC-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM 98/98-F/99/99-F	2'5" (737mm)	2'11" (889mm)
CX-RCM XP98/XP98-F/XP99/ XP99-F	2'5" (737mm)	2'11" (889mm)
CX-RCM 9827/9827-F/ 9927/9927-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM 9847/9847-F/9947/9947-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM 9848/9848-F/9948/9948-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM 9849/9849-F/9949/9949-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM 9850/9850WDC-F/ 9950/9950WDC-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM 9857/9857-F/9957/9957-F	2'4 1/2" (724mm)	2'10 1/2" (876mm)
CX-RCM 9875/9875-F/9975/9975-F	2'5 1/2" (743mm)	2'11 1/2" (902mm)

### Specifications / Power requirements\*

Size – 3.75" x 5.57" x 2.50"

Input voltage – 24VDC

Input current inrush – 1.25A

Input current holding – 390mA

Alarm relay and Secure relay contact ratings – 24VDC, 1A

Fire alarm, Inhibit and Door position switch inputs require normally closed dry contacts.

### How to order

See Chexit "How to order" on previous page.

\*Note: The information listed in these pages reference the power supply and operating requirements for the redesigned RCM modules with motor driven blocking actuator that launched August 24, 2015. For information on devices built previous to August 24, 2015, please contact Customer Care at 877-671-7011.

## DE5300 Delayed Egress System

**DE5300 Delayed Egress System** — Designed for controlled egress applications when used in conjunction with a magnetic lock. It meets both life safety and security needs, as well as the requirements of NFPA for "Special Locking Arrangement" and IBC "Special Egress-Control Devices". All control units, auxiliary locking, local alarm and remote signaling outputs are self-contained in the DE5300 assembly.

The DE5300 is commonly used on narrow stile doors where a standard or narrow stile Chexit is not practical. DE5300 Delayed Exit System uses a Chexit logic board and a Von Duprin RX-LC (low current request to exit) panic device to control a Schlage Electronics Direct Hold Magnetic Lock.

The Chexit module for the DE5300 is installed in a control box and mounted in the wall adjacent to the door. Features and functions of the standard Chexit exit device are available on the DE5300.

### Specifications / Power requirements\*

Size – 3.75" x 5.57" x 2.50"

Input voltage – 24VDC

Input current – 1A

Alarm relay and Secure relay contact ratings – 24VDC, 1A

Fire alarm, Inhibit and Door position switch inputs require normally closed dry contacts.

### How to order

1. DE5300
2. M420/P, M450/P, or M490/P magnetic lock  
(order direct from Schlage Electronics).
3. RX-LC 22/33A/35A/98/99 device.
4. PS900 Series
5. EPT-2/10



# CHEXIT, Remote Chexit Module (RCM) and DE5300 features

The Chexit, RCM and DE5300 devices have several features and options available to fit your needs.

## Inputs & Outputs

### Fire Alarm Input

Releases the door immediately upon a fire alarm allowing immediate egress. The Internal Alarm can be silenced during a fire input via an onboard switch setting.

### Inhibit Input (Access Control)

Optional input provides authorized egress or entry when the device is Armed using an external card reader, Key Switch, etc. Also allows remote reset of the Chexit, RCM or DE5300 in an alarmed condition. The ability to reset alarms with the inhibit input can be disabled via an onboard switch setting.

### Door Position Switch Input

An optional DPS can provide door position status additional security, ensuring that the door is closed, and can cause alarm when the door is left or forced open.

### Gang Bus

The Gang bus allows a device to signal other Chexit, RCM or DE5300 devices when it enters the Release Delay, allowing multiple doors to release at the same time in an emergency. Up to 8 devices may be connected to the Gang Bus.

### Alarm Relay Contacts

Control a Remote Alarm, such as a horn or lamp, or signal an external monitor. The contacts can be configured with a jumper as Normally Open or Normally Closed, and become active upon entering an alarmed condition.

### Secure Relay Contacts

Signal an external monitor. The contacts can be configured as Normally Open or Normally Closed with a jumper, and become active when the DPS indicates the door is closed and the Push Pad is locked.

## Delays

### Release Delay

When the Push Pad is actuated and the Nuisance Delay expires, the device enters the Release Delay with alarm. During the Release Delay, the Internal Alarm sounds, the Alarm Relay activates, and the device remains locked for 15 seconds (less any time already elapsed during the Nuisance Delay). Once started, the Release Delay sequence will not stop and the devices will unlock.

### Nuisance Delay

The Nuisance Delay is the brief time a Push Pad can be accidentally actuated before the Release Delay sequence starts. If the Nuisance Time is set to 0 seconds the device will enter Release Delay as soon as the Push Pad is actuated (when armed). Setting the Nuisance Time to 1, 2, or 3 seconds allows the Push Pad to be pressed for 1 to 3 seconds before the device goes into Release Delay. If the Nuisance Audio and Nuisance Delay are both on, the Internal Alarm will pulse during the Nuisance Delay. The Alarm Relay does not activate during the Nuisance Delay. If the Push Pad is released before the Nuisance Delay expires, the device will remain armed.

## Rearm Delay

The amount of time after the Key Switch or Inhibit Input is deactivated to when the device rearms. It is designed to give someone time to pass through the door before rearming occurs. The Rearm Time can be changed via the onboard switch settings from 0 and 28 seconds in 2 second increments. If the Rearm Time is set to 30 seconds and a DPS is used, if the door is opened and the Rearm Time expires, there will be no alarm. The device will rearm after the door is closed. If the door never opens, the device will rearm after 30 seconds. If not using a DPS, the device will always rearm in 30 seconds.

## DPS Delay

If the DPS detects that the door closed during the Rearm Delay, the device ends the Rearm Delay and allows 2 seconds for the latch to clear the strike before rearming.

## Interface

### Key Switch

Provides the means to Arm or Disarm/Reset the device. Turning the Key Switch clockwise initiates the Rearm Delay, and turning the Key Switch counter-clockwise Disarms/Resets the device. The Key Switch allows the key to be removed in either the Arm or the Disarm/Reset position.

### Status Indicator

The red Status Indicator flashes slow if the device is armed, flashes fast in an alarmed mode, is off when inhibited and on solid during Rearm Delay.

### Internal Alarm

The Internal Alarm sounds continuously during and after a fire alarm or a Release Delay, pulses fast during the Nuisance Delay or a tamper and pulses slow during Disarmed Powerup mode.

## Settings

### Armed Powerup

When set to OFF, a power disruption and power return will put the device in a disarmed, unlocked alarm mode.

### Trim Fail Safe / Fail Secure (FS/FSE)

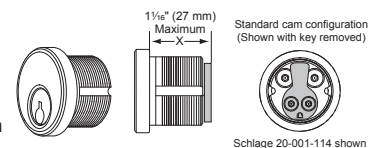
The trim input power can be set to FS (Fail Safe; locked when energized, unlocked when deenergized or during power failure) or FSE (Fail Secure; unlocked when energized, locked when deenergized or during power failure). The trim must be bought or modified to physically function as FS or FSE. This on board setting only selects the trim input power.

## Options

**Cylinder dogging** — Special center case cylinder dogging option is available to allow push/pull operation of the Chexit, when disarmed and used in a heavy traffic area. Prefix device with "CD" and specify handing.

**Cylinders** — Cylinders are not furnished with the Chexit, RCM or DE5300 devices and must be specified when ordering. Use 11/4" mortise cylinder with compression ring K510-406 with straight cam and orient cam as shown. Schlage cylinder 20-001-114 recommended for the device and the CD cylinder dogging option.

See Schlage Pricebook for additional information.



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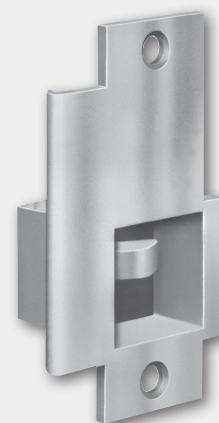
**VON DUPRIN®**

## Monitor strikes

### Overview

Monitor strikes are designed to offer remote door monitoring through the use of a signal switch mounted in the strike to monitor the latch bolt. This series of monitor strikes is designed for use with Von Duprin and most other manufacturers' rim, mortise, surface and concealed vertical rod exit devices and cylindrical, mortise and unit type locks.

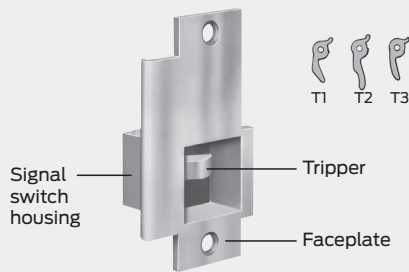
The monitor strike replaces the standard door strike. The tripper in the monitor strike is depressed when the latch bolt is fully inserted in the strike. The stainless steel tripper activates an electric switch.



### Features and benefits

- UL listed as "miscellaneous door accessory"

## Monitor strike overview



Note: Tripper selection is based on the throw and shape of the latch bolt.

### Monitor strike electrical rating

SPDT switch (single pole double throw)

24VDC @ 2 Amps (resistive)



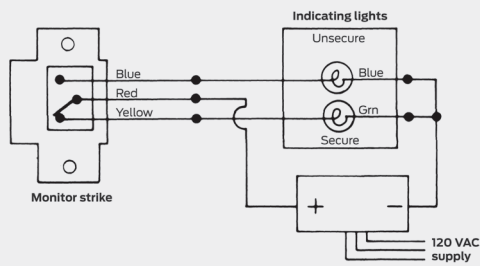
### Model specifications

Model #	4263	4268-T1	4582
Lockset	Rim or surface vertical rod exit devices	Rim fire exit devices	Mortise or cylindrical locks
# Doors	Single or pair	Single or pair	Single or pair
Compatibility (with tripper type)	<p>Von Duprin 22, T3 2227, T1 33A/35A, T3 3327A/3527A, T3 44, T1 55, T1 88, T1 8827, T1 98/99, T3 9827/9927, T1</p> <p>Monarch Rim, T3 (<sup>3</sup>/<sub>4</sub>" [19mm] throw)</p> <p>Yale® 1500, T1 (<sup>5</sup>/<sub>8</sub>" [16mm] throw)</p>	<p>Von Duprin 22/22-F 33A/35A 88/88-F 98/99 98-F/99-F</p>	<p>Schlage <sup>3</sup>/<sub>4</sub>" (19mm) Cyl., T2 L90, T2</p> <p>Falcon <sup>5</sup>/<sub>8</sub>" (16mm) ML (LR), T2</p> <p>Arrow™ <sup>5</sup>/<sub>8</sub>" (16mm) ML (LR), T1</p> <p>Corbin Ruswin® <sup>5</sup>/<sub>8</sub>" (16mm) ML (LR) 5999 ML (LR), T2</p> <p>Yale® <sup>5</sup>/<sub>8</sub>" (16mm) ML (LR), T2</p>
Certifications		UL list (GXHX R4504) fire exit hardware	UL List (GXHX R4504) fire exit hardware
Application notes	1	2	3

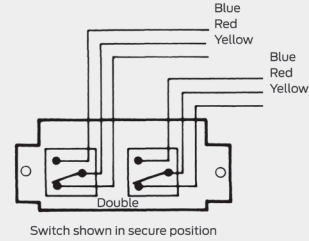
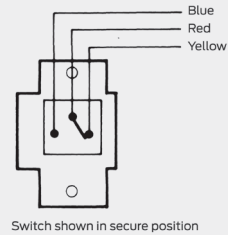
#### Application notes:

1. The 4263 is non-handed and features horizontal adjustment to compensate for misalignment of door and frame. 4263 may be used with a mullion. Tripper selection (-T1 or -T3) is based upon the lock to be used with.
2. The 4268 features horizontal adjustment to compensate for misalignment of door and frame. 4268-T1 is not for use with mullions.
3. For use on single or pair of doors with ANSI 115.3 frame cutout (frame modification required.) Tripper selection (-T1 or -T2) is based upon the lock to be used.

## Basic monitor strike circuit



Power supply same voltage as lamps  
with sufficient current capabilities



### Model specifications

Model #	4570-T1	4670-T1	4690-T2	4690-I-T2
Lockset	Cylindrical locks	Cylindrical locks	Concealed vertical rod exit devices	Concealed vertical rod exit devices
# Doors	Single or pair	Single or pair	Wide stile pair of doors	Narrow stile pair of doors
Compatibility (with tripper type)	<p>Schlage 1/29" (13mm) Cyl. 5/89" (14mm) Cyl.</p> <p>Falcon 1/29" (13mm) Cyl. 9/169" (14mm) Cyl.</p> <p>Adams Rite® 4510 8400</p> <p>Arrow™ 1/29" (13mm) Cyl.</p> <p>Best® 9/169" (14mm) Cyl.</p> <p>Corbin Russwin® 5/89" (16mm) Cyl.</p> <p>Dexter® 7/169" (11mm) Cyl.</p> <p>Kwikset® 1/29" (13mm) Cyl.</p> <p>Precision™ 1040 Automatic Flush Bolt<sup>1</sup></p> <p>Sargent® 1/29" (13mm) Cyl.</p> <p>Yale® 1/29" (13mm) Cyl.</p>	<p>Schlage 1/29" (13mm) Cyl. 5/89" (14mm) Cyl.</p> <p>Falcon 1/29" (13mm) Cyl. 9/169" (14mm) Cyl.</p> <p>Adams Rite® 4510 8400</p> <p>Arrow™ 1/29" (13mm) Cyl.</p> <p>Best® 9/169" (14mm) Cyl.</p> <p>Corbin Russwin® 5/89" (16mm) Cyl.</p> <p>Dexter® 7/169" (11mm) Cyl.</p> <p>Kwikset® 1/29" (13mm) Cyl.</p> <p>Precision™ 1040 Automatic Flush Bolt<sup>1</sup></p> <p>Sargent® 1/29" (13mm) Cyl.</p> <p>Yale® 1/29" (13mm) Cyl.</p>	<p>Von Duprin 3347A-F 3347A 9947 9947F</p>	<p>Von Duprin 3347A</p>
Certifications			UL list (GXHX R4504) fire exit hardware	
Application notes	1	2	3	4

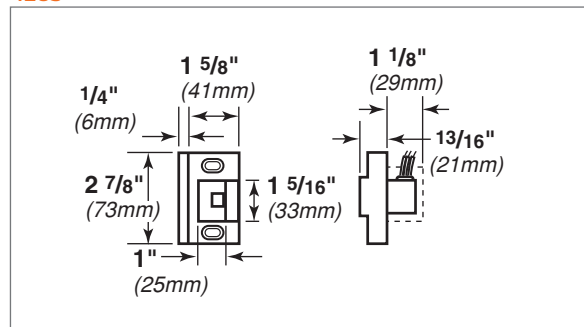
<sup>1</sup> Special template required

### Application notes:

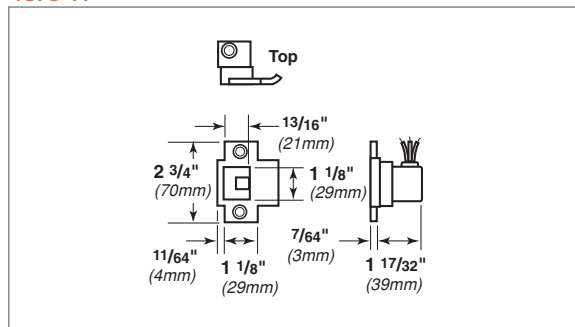
- For use on single or pair of doors with ANSI 115.2 frame cutout (frame modification required.) 4570-T1 is only used with T1.
- For use on single or double doors with ANSI 115.3 fame cutout (frame modification required.) 4670-T1 is only used with T1.
- For use with pair of doors where one leaf has concealed vertical rods. 4690-T2 is only used with T2.
- For use with pair of doors where both leaves have concealed vertical rods. 4690-I-T2 is only used with T2.

# Dimensions

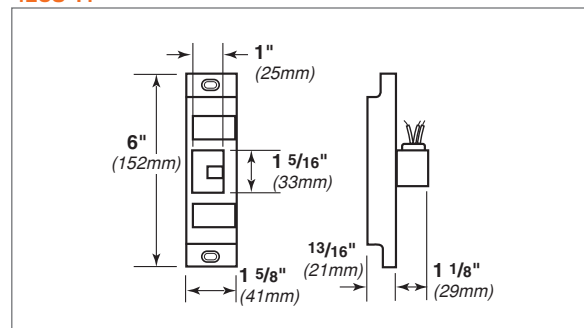
4263



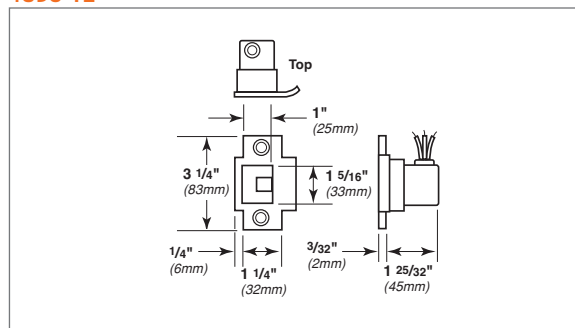
4670-T1



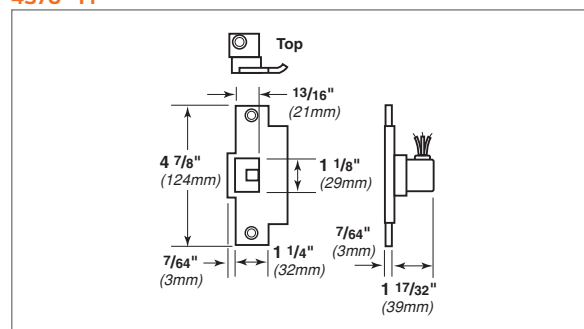
4268-T1



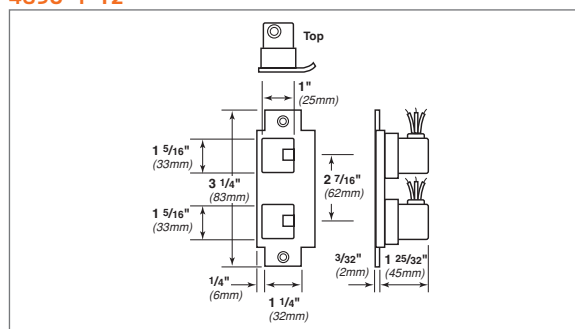
4690-T2



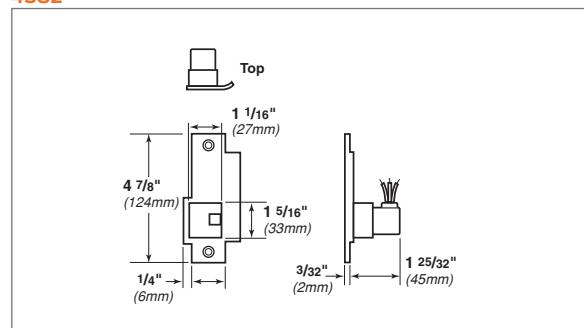
4570-T1



4690-1-T2



4582



## To order, specify

- Model
- Tripper T1, T2 or T3
- Handing required on model 4582
- Specify LHR or RHR
- Finish: US3, US4, US10, US10B, US26, US26D

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LCN®

# Electrohydraulic automatic operators



## Overview

LCN's electrohydraulic automatic operators integrate the 4000 Series mechanical closer to provide a smooth and easy manual opening experience for preliminary manual use applications. When activated, the door works as a fully functional low energy automatic operator to increase accessibility.

The low energy electric Auto Equalizer 4600 Series utilizes LCN's 4040XP mechanical closer to increase product life when the door is primarily used manually. When activated, a motor/clutch system drives the manual closer to automatically open the door.

The low energy pneumatic Auto Equalizer 4800/2600 Series provides quiet, smooth and reliable door operation and allows for use in hazardous locations where electronically operated devices are not permitted.

## Features and benefits

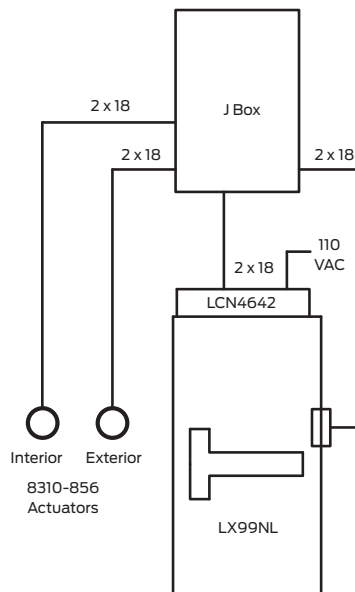
- UL Listed for self-closing doors without hold open under "Swinging door closers"
- Tested and certified under ANSI Standard A156.19
- ANSI Standard A117.1
- Electric Auto Equalizer has a no-destruct feature that allows clutch to slip when abused to reduce damage to the operator
- Digital control suite in electric Auto Equalizer has on-board diagnostics to ensure easy, trouble-free installation
- Pneumatic Auto Equalizer has easily adjustable air pressure and timing cycle to meet the needs of a specific installation
- Pneumatic Auto Equalizer is available in four different mounting configurations

Features	4600 Series	4800/2600 Series
Handed	No	No; Yes (2610)
Mounting options	Push (4640) Pull (4630)	Push (4820) Pull (4810) Parallel arm (4840) Concealed (2610)
On board power supply	Yes	No
Digital control box	Yes	No
Header length	33 1/2"	20"
Maintains memory after power loss	Yes	Yes
Adjustable manual open face	Yes	Yes
Blow open capability	No	Yes
Meets UL requirements	UL/cUL 325 and 228	UL 228

All electrohydraulic operators are available in seven standard or 150+ custom powder coated finishes.

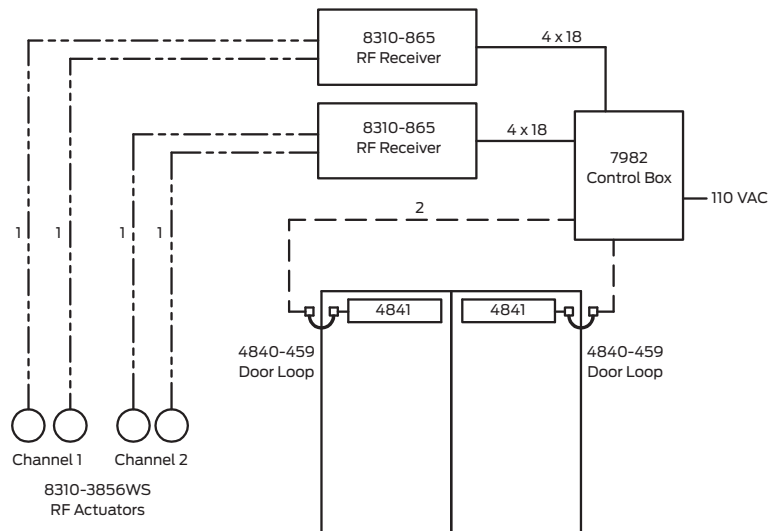
## Sample common applications

### Exterior retail entrance



Operation: When panic device is mechanically dogged both interior and exterior actuators will be enabled through LX switch. When device is undogged actuators will not function.

### Church/library entrance



Operation: Doors normally closed, not latched. Two 8310-3856WS actuators to independently signal each door to swing.

<sup>1</sup> Dashed/dotted lines indicate RF signal, not a wiring connection.

<sup>2</sup> Dashed lines indicate pneumatic 925 tubing.

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LCN®

# Electromechanical automatic operators



## Overview

The LCN® electromechanical automatic operators are designed for durability and extended performance when used in primarily automatic applications. The electromechanical gearbox acts as a manual closer when the door is not automated or power is lost.

The low energy electromechanical Senior Swing (2800 and 9500 Series) is LCN's toughest operator—designed specifically for medium to heavy duty use in mostly automated applications. The Senior Swing offers a digital control suite that provides precise control of a large range of built-in functions.

The low energy Benchmark operator (9100 Series) is designed for low to medium use commercial applications, also for primarily automated applications. With its slim design, the Benchmark is great for interior door applications when aesthetics are a concern.

## Features and benefits

- UL Listed for self-closing doors without hold open, UL 325
- Tested and certified under ANSI 156.19
- ADA compliant
- Opening time from full close to backcheck is no faster than 3 seconds
- Less than 15 lbs. to open door manually on-board power supply (Benchmark 24VDC output and Senior Swing 24V AC or 24V DC output) to power card readers, actuators and safety circuits



Features	2800 Series	9500 Series	9100 Series
Handed	Yes	Yes	No
Mounting options	Concealed 2810 (Single) 2850 (Sim. Pair) 2860 (Ind. Pair)	Surface 9530 (Push/Single) 9540 (Push/Single) 9550 (Sim. Pair) 9560 (Ind. Pair)	Surface 9130 (Pull) 9140 (Push) 9150 (Sim./Ind. Pair)
On board power supply	Yes	Yes	Yes
Digital control box	Yes	Yes	No
Header length	Variable- See LCN catalog	36" - 49" (single) 72" - 98" (double)	27" or 36" (single) 72" (double)
Maintains memory after power loss	Yes	Yes	Yes
Push 'n go	Yes	Yes	Yes
Power Boost	Yes	Yes	Yes
Simultaneous pair with single control box	Yes	Yes	No
Meets UL requirements	UL 325/228	UL 325/228	UL 325/228

All electromechanical operators are available in aluminum and dark bronze finishes.

## Electrical data

2800, 9500 Series

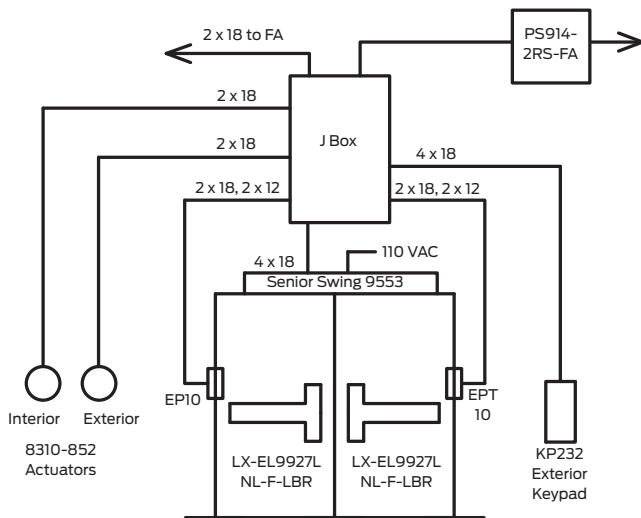
- 120 VAC 60Hz input at 2.5 AMPS (2800 and 9500 Series)
- 240 VAC 50/60 Hz at 2.5 AMPS (2800 and 9500 Series)
- 24 VAC output at 1.5 AMPS (protected by self-resetting thermal fuse)
- 24 VDC available with SO kit included

9100 Series

- 120 VAC 60Hz input at 1 AMPS
- 24 VDC output at 2.5 AMPS

## Sample common applications

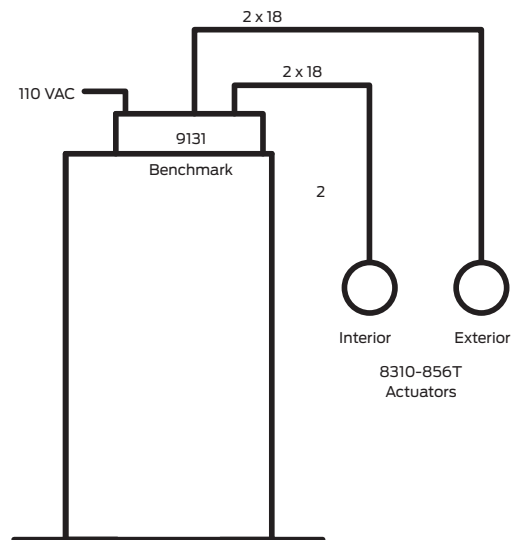
### Secure hospital hallway



Operation: KP232 keypad exterior to signal EL latch retraction and enable exterior actuator through LX switches in panic device. Interior actuator always active.

Fire alarm to extend EL latch and disable automatic operator.

### Restroom doors



Operation: No latching at this door. For a single occupancy restroom. Either actuator will open door at any time.

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**LCN®**

# Fire/life safety closers/holders series



## Overview

Sentronic Series LCN closers/holders combine heavy duty closers with electrically controlled hold-open functions to control fire and smoke barrier doors. Automatic detection and containment of fire and smoke are the best ways to minimize danger to life and property. Patented Sentronic door closer/holders are designed to hold swinging doors open in normal use then release and automatically close the doors under fire conditions. These products integrate into your complete fire and life safety system.

LCN's fire/life safety closers/holders series includes:

- SE Series - offers adjustable single-point hold-open function controlled by solenoid assembly located in the SE track
- ME Series - offers infinitely adjustable, multi-point hold-open function controlled by solenoid on the cylinder assembly
- SEM Series - Electromagnetic door holders work with manual door closer to provide single-point hold-open
- HSA Series - Best suited for high traffic emergency doors, this product provides easy passage for groups of pedestrians through high traffic doors with electronically controlled closer/holder

## Features and benefits

- Conforms to NFPA 101 and ANSI 156.15
- 24V AC/DC or 120V AC input
- When current is interrupted, hold-open releases and door closes
- Adjustable hydraulic backcheck cushions opening swing prior to 90°
- Separate regulation of general closing speed and latching speed
- Available in wide range of powder coated finishes to blend with door and frame (SEM magnets available in aluminum and dark bronze only)
- Circuit automatically handles AC or DC input
- Can be pushed safely and easily out of hold-open
- Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted
- High strength cast iron cylinder
- Forged steel main arm and piston
- All weather fluid

## Holding solenoids current draw

### SE/ME

- 24V AC/DC (+10% - 15%) at 90 mA maximum
- 120V AC/DC (+10% - 15%) at 30 mA maximum

### SEM (tri-volt)

- 12V DC (+10% - 15%) at 30 mA maximum
- 24V AC/DC (+10% - 15%) at 20 mA maximum
- 120V AC/DC (+10% - 15%) at 20 mA maximum

### HSA

- 24V AC/DC (+10% - 15%) at 120 mA maximum

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**LCN®**

# Actuators and sensors



## Overview

LCN actuators and sensors are designed to be used with LCN automatic operators. The desired function, traffic patterns and physical design of the opening will determine the type of actuator used.

Safety and activation sensors are designed to protect pedestrians and help prolong the life of an automatic operator. LCN safety sensors can be used on all automatic operators.

LCN also offers a full line of activation device accessories, including surface and flush mounted boxes, weather rings, escutcheons, wireless transmitters and receivers (1 channel), key chain activation devices (up to 4 buttons), sequencers, and a bollard post (used with 4 3/4" square actuator.)

## Features and benefits

- Complies with ANSI 156.19
- Can be ordered individually or in kits that combine common products for a specific application
- Beveled edges provide a tamper and vandal resistant solution to push plate needs, allowing no room for objects to get between plate and mounting box
- An all-active plate activates with any "push" location
- Stainless steel finish will not deteriorate or rust where it is touched — scratch and scuff resistant
- All activation push plates are available with ADA logo art and text or with ADA logo art only
- Text and ADA Compliant logo art are baked onto the surface for added durability

## Stainless steel push plates

### Round push plates



6" Round style push plate



4 1/2" Round style push plate

### Square push plates



4 3/4" Square style push plate

### Jamb push plates



Jamb style push plate



Dual jamb style push plate

## Ready mount actuators



6" Slim profile push plate



4 3/4" Square style push plate



36" x 6" Full length actuator

## Sensors



Door mount  
Safety sensor



Header mount  
Safety sensor



Monitored Safety Sensor Kit

## Actuator accessories

LCN offers a full line of activation device accessories, including: surface and flush mounted boxes, weather rings, escutcheons, wireless transmitters and receivers (1 channel), key chain activation devices (up to 4 buttons), sequencers, and a bollard post (used with 4 3/4" square actuator)

### Mounting boxes



### Weather rings



### Bollard post



### Wireless transmitters/receivers



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## Readers



This section of the Electronic Access control catalog covers Schlage smart, multi-technology, proximity, keypad and enrollment readers and accessories.

### Overview

Choosing the right electronic access control solution is at the heart of your company's security ecosystem—whether used only for access control, or for other applications such as cashless vending, logical access, transportation or biometric data—choosing the right credential and reader system for your current needs—and for what might happen—in the future is critical.

Whether a facility requires a highly secure, highly flexible smart credential, or something less demanding, Schlage's wide variety of reader and credential offerings allows you to choose the best option to fit any budget, functionality or security need. All with the peace of mind of knowing you're selecting an industry leader in security and safety products.

Security has always been at the heart of all of our products.

**Special Note:** As of September 2017, all aptiQ® and XceedID® readers will transition to the Schlage brand. Although the brand name has changed, all part numbers and products remain the same.

Forward and backward compatibility does not change and products may be used interchangeably.

## Smart readers

- The Schlage SM10 mini-mullion smart reader is one of the most secure readers in the industry. Instead of using open transmission protocols, the SM10 smart card reader utilizes high security data. Each message between the card and the reader is digitally signed using message authentication coding (MAC) to ensure the integrity of the data.
- In addition, smart reader technology can be used in applications such as logical access, cashless vending and cafeteria services.

## Multi-technology readers

Schlage multi-technology readers are designed to simplify your access control solutions and allow a transition from existing population proximity or magnetic stripe to more secure encrypted card technology at your own pace—without having to change readers as new technologies are available. Five available models to fit any need and works with multiple form factors including wristbands, cards, fobs and tags.

- MT11: Mullion Mount
- MT15: Wall Mount (Single-gang)
- MTK15: Wall Mount w/keypad (Single gang)
- MTMS15: Magnetic Stripe Reader Wall Mount
- MTMSK15: Magnetic Stripe Reader Wall Mount with Keypad
- Schlage multi-technology readers contain both 125 kHz proximity and 13.56 MHz contactless smart card capability in one-unit handling multiple formats simultaneously.
- Wiegand and RS-485 output available for simple interface with most access control panels.
- Compatible with NFC-open smart phones using Schlage or aptiQ mobile credentials.
- Schlage multi-technology readers are NFC compatible and ready to read your Schlage or aptiQ mobile credential.
- Limited lifetime warranty
- Accommodates interior, exterior, metal and non-metal installation environments
- Quick-connect cable allows for easy installation
- Easy-to-install mounting bracket
- Available finishes include: Black (standard), cool-tone gray, cream,

and warm-tone brown

## Proximity readers

Schlage's low-frequency proximity reader is an approachable solution that integrates seamlessly with access control systems. Schlage's proximity readers are sleek, compact and provide a cost-effective option for applications requiring lower security. The mini-mullion design makes the readers ideal for installation in tight spaces. The PR10 recognizes most industry leading 125 kHz proximity credentials and can be easily integrated into existing legacy proximity systems.

- PR10: Mini-Mullion Mount
- Reads 125 kHz proximity credentials
- Wiegand output for simple interface with most access control panels
- LED (red, green or amber) visual indicator and other industry manufacturers' credentials
- Limited lifetime warranty
- Compatible with Schlage and other industry manufacturers' credentials
- Accommodates interior, exterior, metal and non-metal installation environments
- Quick-connect cable allows for easy installation
- Easy-to-install mounting bracket
- Available finishes include: Black (standard), Cool-tone gray, cream and warm-tone brown

## Additional supporting readers

Schlage offers an extensive range of reader technologies to meet any business need. Complementing the Schlage multi-technology, smart technology and proximity technology reader options include: keypads, scramble keypads, magnetic stripe, and bar code readers and encoders.

- OEM200
- SMR10 Magnetic Stripe Reader
- SMR20 Magnetic Stripe Reader
- SMR5 Magnetic Stripe Reader
- SERIII-W Scramble Keypad Reader
- SEKPDWG Electronic Keypad Reader
- SEKPDMGW Electronic Keypad Reader
- KP212 Mounted Keypad
- KP232 Mounted Keypad
- KP2000 Mounted Keypad
- CRP2 Enrollment Reader
- CL-ENCODER2 Magnetic Stripe Credential Encoder

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## Multi-technology readers



### Overview

Schlage® multi-technology readers are designed to simplify your access control solutions and allow a transition from existing population proximity or magnetic stripe to more secure encrypted card technology at your own pace—without having to change readers as new technologies are available. Five available models to fit any need and works with multiple form factors including wristbands, cards, fobs and tags.

- MT11: Mullion Mount
- MT15: Wall Mount (Single-gang)
- MTK15: Wall Mount w/keypad (Single gang)
- MTMS15: Magnetic Stripe Reader Wall Mount
- MTMSK15: Magnetic Stripe Reader Wall Mount with Keypad

### Features and benefits

Schlage multi-technology readers contain both 125 kHz proximity and 13.56 MHz contactless smart card capability in one-unit handling multiple formats simultaneously. Wiegand and RS-485 output available for simple interface with most access control panels.

- Compatible with NFC-open smart phones using Schlage or aptiQ mobile credentials.
- Limited lifetime warranty
- Accommodates interior, exterior, metal and non-metal installation environments
- Quick-connect cable allows for easy installation
- Easy-to-install mounting bracket
- Available finishes include: Black (standard), cool-tone gray, cream and warm-tone brown



Model*	MT11		MT15		MTK15		MTMS15		MTMSK15	
Reader type	Multi-technology – mullion		Multi-technology – single gang		Multi-technology with keypad –single gang		Multi-technology with magnetic stripe		Multi-technology with magnetic stripe and keypad	
Frequency			13.56 MHz and 125 kHz				13.56 MHz and 125 kHz and magnetic stripe			
FIPS 201 compliant					Yes					
Standard default PIV output					75 bit PIV**					
Standards					SO 14443A, 14443B, 15693					
Certifications			FCC Certification • IC Certification • UL 294 Listed • RED Directive (15 EU Countries) • CE Mark • IP65							
Voltage range					5-16 VDC					
Power supply					Linear DC					
Current requirement (at 12 VDC and 25 C; mAmps)	MT11 Avg. 100 mA Peak 170 mA	MT11-485 Avg. 115 mA Peak 145 mA	MT15 & MT15-485 Avg. 120 mA Peak 200 mA		MTK15 and MTK15-485 Avg. 120 mA Peak 230 mA		MTMS15 and MTMS15-485 Avg. 120mA Peak 200mA		MTMSK15 and MTMSK15-485 Avg. 120mA Peak 230mA	
Read range					Proximity: Up to 5" (12.7 cm) MIFARE Classic: Up to 4" (10 cm) MIFARE Plus: Up to 1" (2.5 cm) MIFARE DESFire EV1: Up to 2" (5.1 cm) PIV credential: Up to 2.5" (6.5 cm)					
Cable specification					18 AWG, 5 conductor stranded/shielded					
System interfaces					Wiegand / Clock & Data / RS-485*** (OSDP)					
Cabling distance					Wiegand output: 500 ft (152 m)					
Physical dimensions (H x W x D)	5.91" x 1.72" x 0.81" 15 cm x 4.4 cm x 2.1 cm		5.1" x 3.25" x 0.76" 12.9 cm x 8.3 cm x 1.9 cm		5.1" x 3.25" x 0.76" 12.9 cm x 8.3 cm x 1.9 cm		4.43" x 5.17" x 1.15" 11.25 cm x 13.13 cm x 2.92 cm		4.43" x 5.17" x 1.15" 11.25 cm x 13.13 cm x 2.92 cm	
Operating temperatures	40° to 158°F (-40° to 70°C)		40° to 158°F (-40° to 70°C)		40° to 158°F (-40° to 70°C)		-31° to 151°F (-35° to 67°C)		-31° to 151°F (-35° to 67°C)	
Weight	5.7 oz		9.1 oz		9.3 oz		8.9 oz		9.5 oz	
Material					PBT Polymer					
Technologies supported in default mode										
Schlage Proximity										
XceedID® Proximity										
HID® Proximity										
GE/CASI ProxLite®										
AWID® Proximity										
LenelProx®										
Schlage/aptiQ mobile										
Schlage/aptiQ/XceedID smart cards using MIFARE Classic										
Schlage smart cards using MIFARE Plus										
Schlage/aptiQ smart cards using MIFARE DESFire EV1										
DESFire® CSN										
HID iCLASS® CSN										
Inside Contactless PicoTag® CSN										
ST Microelectronics® CSN										
Texas Instruments Tag-It® CSN										
Phillips I-Code® CSN										

Color  
options†



Black  
(standard)



Cool tone  
gray



Cream



Warm tone  
brown

\* Some features and benefits listed on the front may not be applicable to the smart-only and proximity-only readers.

\*\* Other output options available through configuration.

\*\*\* RS-485 model numbers include "-485" after the original model number. For example, MT11-485 is the RS-485 version of the multi-technology mini-mullion reader. Multi-drop, Open Standard Device Protocol (OSDP).

† Lead time may apply for non-standard colors

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# Reader accessories

## Overview

Choosing the right electronic access control solution is at the heart of your company's security ecosystem – whether used only for access control, or for other applications such as cashless vending, logical access, transportation or biometric data—choosing the right credential and reader system for your current needs—and for what might happen—in the future is critical.

Schlage® offers a variety of accessories and replacement parts to ensure your readers are always performing well.

### Reader covers

Replacement reader covers can be used to replace faded or cracked covers and to change the color of your readers along with any updates to the facility's décor. We offer four color options — black, cream, cool tone gray and warm tone brown.

### Cosmetic backplate covers

While replacing legacy readers with Schlage readers, the footprint of the legacy reader may be larger than that of the new reader. Cosmetic backplate covers accommodate this issue. Available in three sizes, our cosmetic backplate covers are designed to cover holes and unpainted areas that you do not wish to invest time and money to repair.

### Quick-connect cable

The quick connect cable allows the installer to connect the necessary reader wires without the hassle of a reader case hanging off the other end. Simply connect the wiring harness and plug the reader in, it's that easy. Every reader already comes with a quick-connect cable, but you can order the cable separately if you need extras.

### Other accessories

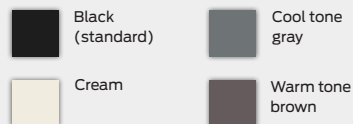
Following repeated use, the magnetic stripe read head in a reader can wear down. We offer a replacement magnetic stripe read head for our Schlage multi-technology magnetic stripe readers.

Reader mounting backplates are designed as a quick mounting bracket for a simplified installation process. Every reader comes with a reader backplate, but you can also order these separately if you need replacements and extras.



### Reader covers

#### Color options



### Cosmetic backplate covers



### Quick-connect cable

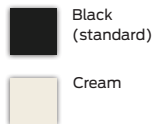


Part number	Black	23846520	23846553	23846587	23846611	24064149	24064198
	Brown	23846546	23846579	23846603	23846637	24064156	24064206
	Gray	23846538	23846561	23846595	23846629	24064172	24064222
	Cream	23920648	23920655	23920598	23920606	24064164	24064214
Corresponding reader model	PR10 and SM10		MT11	MT15	MTK15	MTMS15	MTMSK15
Reader type	Mini-mullion		Mullion	Single gang	Single gang with keypad	Magnetic stripe	Magnetic stripe with keypad
Dimensions (HxWxD)	4.26" x 1.72" x 0.81"		5.91" x 1.72" x 0.81"	5.1" x 3.25" x 0.76"	5.1" x 3.25" x 0.76"	4.43" x 5.17" x 1.15"	4.43" x 5.17" x 1.15"
Material	PNT polymer		PNT polymer	PNT polymer	PNT polymer	PNT polymer	PNT polymer



Part	Cosmetic backplate cover		Quick connect cable/ pigtail – 18 inch	Magnetic stripe read head	Mounting backplate	
Part number	Mini-mullion/ mullion	CP-11	23846462	21074009	Mini-mullion	23846355
					Mullion	23846397
	Single gang	CP-15			Single gang	23846439
	Mid range	CP-21			Magnetic stripe	24152654
Dimensions	Mini-mullion/ mullion	6.70" x 2.50"	N/A	N/A	5.1" x 3.25" x 0.76"	
	Single gang	5.65" x 3.85"				
	Mid-range	6.45" x 5.50"				

## Color options



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# FIPS 201 compliant readers



## Overview

Schlage® smart and multi-technology readers have been approved by the U.S. Government under HSPD-12 for FIPS 201-1 and FIPS 201-2\* compliance as PIV transparent readers. PIV compliance is available on six reader models, including the SM10 smart mini-mullion, MT11 multi-technology mullion, MT15 multi-technology, MTK15 multi-technology with keypad, MTMS15 multi-technology with magnetic stripe and MTMSK multi-technology with magnetic stripe and keypad.

Schlage multi-technology readers are a unique and critical component of successful security upgrades in all sectors of the government. FIPS 201-1 and 201-2 are Federal Information Processing Standards ("FIPS") developed by the National Institute of Standards and Technology ("NIST") to satisfy the requirements of HSPD-12, a Homeland Security Presidential Directive. One of the main objectives of HSPD-12 is to ensure government-wide interoperability for information technology and security through the implementation of a range of federal standards and product requirements. FIPS 201 seeks to improve identification and authentication of federal employees and contractors for access to the federal facilities and information systems.

Schlage FIPS 201 PIV compliant readers are available with multiple data output formats, which provide unprecedented versatility within the PIV & PIV-I specification.

In addition to reading approved FIPS 201-1 and 201-2 PIV & PIV-I credentials, Schlage smart and multi-technology readers are also compatible with many standard proximity and leading smart card technologies (see specifications). The ability to read multiple existing card types and PIV & PIV-I cards simultaneously is a tremendous benefit to those agencies looking to transition seamlessly from older proximity technologies to new, mandated PIV & PIV-I credentials. A mixed population of old proximity credentials and new PIV & PIV-I credentials is unavoidable during the government's multi-year upgrade path to FIPS 201 compliance.

## Features and benefits

- **Compatibility:** compatible with industry standard magnetic stripe technology (tracks 1, 2, or 3) and 125 kHz and 13.56 MHz contactless technologies
- **Read range:** up to 6 inches (proximity), up to 2 inches for PIV & PIV-I credentials
- **Tri-state LED (red, green, amber):** visual indicator and audio feedback representing status and activity information
- **Tamper detection**
- **Environment:** accommodates interior, exterior, metal and non-metal installation environments

## Additional features

- Compliance: compatible with applicable ISO standards
- Compatible with all access control systems that support Wiegand format
- Warranty: limited lifetime against defective workmanship and materials
- Additional technologies supported
  - Magnetic stripe
    - Track 1, 2, or 3
  - Proximity
    - Schlage
    - XceedID®
    - HID® Proximity (certain formats)
    - GE/CASI ProxLite™
    - AWID® Proximity
  - Smart card (secure sector only)
    - Schlage and aptiQ MIFARE Classic®
    - Schlage and aptiQ MIFARE Plus®
    - Schlage and aptiQ MIFARE® DESFire® EV1
    - PIV & PIV-I
  - Smart card (card serial number only)
    - DESFire® application HID iClass®
    - Inside contactless PicoTag™

## Ordering information

- **SM10** - Smart mini-mullion reader
- **MT11** - Multi-technology mullion reader
- **MT15** - Multi-technology single gang reader
- **MTK15** - Multi-technology with keypad single gang reader
- **MTMS15** - Multi-technology magnetic stripe reader
- **MTMSK15** - Multi-technology with magnetic stripe reader and keypad

Schlage PIV readers have been approved by the GSA lab as compliant with FIPS 201-1 and the appropriate PIV credentials.

Please see individual data sheets for each reader for more specific technical information.

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# Enrollment readers

## Overview

Schlage® offers a comprehensive portfolio of electronic access control solution products. Create a simple enrollment process with the Schlage CRM2 magnetic stripe enrollment reader, Schlage CRP2 proximity enrollment reader or the Schlage MT20 USB multi-technology enrollment reader with ENGAGE technology.



## Features and benefits

### CRM2 Magnetic Stripe Credential Enrollment Reader and CRP2 Proximity Credential Enrollment Reader

- Design allows easy enrollment of credentials into the Schlage Express access control system
- Compact reader that eliminates the need for manual data entry and provide error-free identification and security throughout the facility
- Allows for keystrokes to be added before and after the card's data, providing flexibility and data customization
- Reads data from any data track location on the card
- USB connectivity
- Plug-and-play functionality
- Compatible with Schlage Express version 4.0 and higher

### The Schlage MT20 Multi-Technology Enrollment Reader

- Design simplifies the enrollment of smart and multi-technology credentials
- Access rights can be assigned to a user without property staff having to visit the lock
- USB cable powers the device
- Use Wi-Fi connection for credential enrollment including no-tour credentials
- Use a computer and the ENGAGE web app to easily enroll credentials
- Recognizes Schlage smart and multi-technology credentials (MIFARE Classic, MIFARE Plus and MIFARE DESFire EV1)
- Limited Lifetime Warranty





Model	MT20
Reader type	USB
Software and operating system requirements	N/A - USB
Bit formats recognized	26A, 32X, 34N, 34S, 35C, 37X, 37H, 40X
Technologies supported	Schlage Proximity XceedID® Proximity HID® Proximity GE/CASI ProxLite® AWID® Proximity LenelProx® Schlage MIFARE Classic Secure Sector aptiQ/XceedID MIFARE Classic Secure Sector Schlage MIFARE Plus Secure Sector Schlage MIFARE DESFire EV1 with PACSA Secure Sector aptiQ MIFARE DESFire EV1 with PACSA Secure Sector DESFire® CSN HID iClass® CSN Inside Contactless PicoTag® CSN ST Microelectronics® CSN Texas Instruments Tag-It® Serial Number Phillips I-Code® CSN
Physical dimensions (L x W x H)	5.56" x 2.00" x .695"
Operating temperatures	32° to 104° F (0° to 40° C)
Weight	4.1 oz
Power supply	Connect to powered USB port or via USB power supply
Interface	USB
Current requirement	160 mA
Default configuration	CE-401-073, for use with ENGAGE web application
Octal output	CE-401-061, for use with SMS Express
FC/BID output	CE-401-060 (SUSB89 default,) for use as keystroke emulator
BID only	CE-401-069, for use as keystroke emulator



Model	CRP2
Typical maximum read range	1.0" – 3.0" (2.5 – 7.6 cm) dependent upon proximity card type and environmental conditions
Dimensions (H x W x D)	3 3/8" x 2" x 0.6"
Weight	0.45 lbs (12.7g)
Power supply and interface	USB self-powered
Indicators	Tri-state LED, beeper
Transmit frequency	125 kHz
Operating temperature range	-22° to 150°F (-30° to 65°C)
Operating humidity range	5% to 95% relative humidity, non-condensing
Storage temperature range	-40° to 185°F (-40° to 85°C)
Certifications	FCC, United States; CE Mark Europe, C-tic Australia, RoHS
Warranty	One year for material/workmanship and defects



Model	CRM2
Desktop dimensions (H x W x D)	3.674" x 1.325" x 1.193" (93.32 x 33.65 x 30.3 mm); Optional base: 3.375" x 3.5" x 0.5" (86 x 89 x 13 mm)
Desktop weight	4.6 oz (136 g); Base: 13 oz (369 g)
Media thickness	0.015" (0.127 mm) to 0.038" (1.14 mm)
Slot width	0.040" (1.0 mm)
Swipe speed	3 to 60 inches per second, bi-directional
Power supply and interface	USB: self-powered; RS-232 [DB9F] model: 5V supplied by either PS/2 keyboard pass-through or USB power tap
Indicators	Tri-state LED, beeper
Operating temperature range	32° to 131°F (0° to 55°C)
Operating humidity range	5% to 95% relative humidity, non-condensing
Storage temperature range	-22° to 158°F (-30° to 70°C)
Cable length	6 foot articulated cable
Operating life	1,000,000 cycles minimum
Warranty	One year for material/workmanship and defects

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# SERIII-W

Scramble keypad



## Overview

The SERIII scramble keypad is a keypad reader designed to prevent onlookers from detecting the PIN code being entered. The LED's display a randomly allocated set of numbers from 0 to 9. The position of the numbers change every time the keypad is activated. Only the user standing directly in front of the keypad can see the scrambled digits.

## Features and benefits

- Very narrow viewing angle of the lighted, scrambled digits
- The membrane keypad is extremely durable
- Random allocation of digits ensures even wear to the keys
- Individual PIN codes can be up to 9 digits in length
- The SERIII has a weatherproof rating of IP65
- An audible alarm signals when a button is depressed
- Robust polycarbonate enclosure
- The unit is equipped with power-up diagnostics and self-test routine
- The SERIII is provided with Wiegand communication protocol
- Over 3.6 million unique permutations are available
- Terminal connection on the rear of the unit

## Specifications

Dimensions (H x W x D)	5.39" x 4.17" x 2.05"
Input voltage	8 - 12 VDC
Input current	500mA max.
Operating temperature	5° F to 122° F
Weight	16.76 oz
Cable distance (Wiegand)	500' with 22AWG 6 conductor stranded with overall shield

## Ordering information

- **SERIII-W-GR** - Scramble keypad (gray)
- **SERIII-W-BLK** - Scramble keypad (black)
- **SMK-2-GR** - Scramble keypad surface mount kit (gray)
- **SMK-2-BLK** - Scramble keypad surface mount kit (black)
- **SSMK-2-ADA** - Scramble keypad surface mount kit (ADA compliant)
- **PMK-2-GR** - Panel mount kit (gray)
- **PMK-2-BLK** - Panel mount kit (black)
- **SPMK-2-GR** - Panel mount kit with steel back box (gray)
- **SPMK-2-BLK** - Panel mount kit with steel back box (black)

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# SMR10 and SMR20

Magnetic stripe readers



## Overview

The SMR10 and SMR20 stripe readers have a slim, mullion style design. The die cast metal housing makes it ideal for indoor or outdoor applications. The SMR20 has a 12 position membrane style keypad.

## Features and benefits

- Rugged metal housing
- All stainless steel hardware is standard
- Audiovisual indication provides two LED's (red/green) and beeper sounds
- Static discharge protection
- Accepts low or high coercivity-magnetic cards
- Standard track 2 encoding (track 1 and 3 are available)
- One security screw mounting
- Supports Wiegand or Clock & Data interface formats via dip switches

## Specifications

Dimensions (W x H x L)	1.95" x 1.3" x 5.5"
Power requirements	5 or 12 VDC
Power consumption	20 mA at 12 VDC
Operating temperature	-40° F to 170° F
Weight	10 oz
Cable distance	500' with 18AWG 6 conductor stranded with overall shield

## Ordering information

- **SMR10-5V-BLK** - 5 VDC standard, magnetic stripe card reader (black)
- **SMR10-5V-BG** - 5 VDC standard, magnetic stripe card reader (beige)
- **SMR10-12V-BLK** - 12 VDC magnetic stripe card reader (black)
- **SMR10-12V-BG** - 12 VDC magnetic stripe card reader (beige)
- **SMR20-5V-BLK** - 5 VDC standard, magnetic stripe card reader with keypad (black)
- **SMR20-5V-BG** - 5 VDC standard, magnetic stripe card reader with keypad (beige)
- **SMR20-12V-BLK** - 12 VDC magnetic stripe card reader with keypad (black)
- **SMR20-12V-BG** - 12 VDC magnetic stripe card reader with keypad (beige)

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# SMR5

## Magnetic stripe reader



### Overview

The SMR5 Mercury magnetic stripe reader has a slim, mullion style design. The die cast metal housing makes it ideal for indoor or outdoor applications.

### Features and benefits

- Rugged metal housing
- All stainless steel hardware is standard
- Audiovisual indication provides multicolor LED (red/green) and beeper sounds
- Static discharge protection
- Accepts low or high coercivity-magnetic cards
- Standard track 2 encoding (track 1 and 3 are available)
- One security screw mounting
- Supports Wiegand or Clock & Data interface formats

## Specifications

Dimensions (W x H x L)	1.95" x 1.3" x 5.5'
Power requirements	5 or 12 VDC
Power consumption	20 mA at 12 VDC
Operating temperature	-40° F to 170° F
Weight	10 oz
Cable distance	500' with 18AWG 6 conductor stranded with overall shield

## Ordering information

- **SMR5-5V-BLK** - 5 VDC magnetic stripe card reader (black)
- **SMR5-5V-BG** - 5 VDC magnetic stripe card reader (beige)
- **SMR5-12V-BLK** - 12 VDC magnetic stripe card reader (black)
- **SMR5-12V-BG** - 12 VDC magnetic stripe card reader (beige)

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## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

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# SEKPDWG and SEKPDMWG

Electronic keypads



## Overview

The fully encapsulated electronic keypad can be used by itself or next to another reader device for additional security. Its stainless steel construction is ideal for indoor or outdoor applications. The two designs, single gang box or the mullion mount style, give it the diversity needed for any application.

## Features and benefits

- Field selectable keypad configurations
- SEKPDWG mounts directly to a single gang electrical box
- SEKPDMWG mounts to any mullion style frame
- No moving parts to replace

## Specifications

Dimensions	SEKPDWG: 5.125" x 3.375" x .437" SEKPDMWG: 7.125" x 1.75" x .75"
Power supply	5-12 VDC (field selectable)
Operating temperature	-40° F to 160° F
Weight	SEKPDWG: 16 oz SEKPDMWG: 4.4 oz
Material	316L stainless steel
Standby current draw	SEKPDWG: 5V-20mA, SEKPDMWG: 5V-20mA

## Ordering information

- **SEKPDWG** - Single gang style keypad
- **SEKPDMWG** - Mullion style keypad
- **SEKPD8B** - Mullion style keypad (8 bit)

Note: Specify 5V or 12V

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# KP212, KP232 and KP2000



## KP212 and KP232

### Mullion mounted keypad series

The mullion keypad series is a standalone solution and is ideal for controlling electrified door hardware such as electric strikes or electromagnetic locks. The sleek design allows easy installation, mounting directly to mullion. Designed with backlit keys and weather resistant, they are well suited for both indoor and outdoor applications.

The mullion stile readers can be programmed to accept up to 120 user codes, are equipped with a Form C, dry contact relay and can be released by using a momentary request-to-exit switch.

The KP232 is designed to meet most residential, commercial, and industrial single door access control needs, and has two inputs and four outputs and factory set access control. The KP232 is a back-to-back keypad application, coming with two keypads. One keypad must be wired on the inside of the door and one must be wired on the outside of the door, creating an in and out reader setup.

## KP2000

### Single gang flush mount

The KP2000 series single gang flush mount keypads manage up to 500 users and provide complete access control functionality including monitoring door position, controlling locking hardware, triggering propped or forced alert or alarm shunt output. Other applications for the KP2000 series keypads include: controlling electronic devices such as handicapped doors, gate controls, alarm systems, ATM vestibules, and other types of machinery requiring momentary or latched outputs.

The KP2000 Series comes in two different styles: the "e" style and the "eM" style. The "e" style keypad uses hardened backlit keys while the "eM" style uses a durable metal keypad including Braille alpha-numeric keys. The KP2000 series can be used in interior and exterior applications. The flush-mount keypads are constructed to meet your aesthetic needs while ensuring long-term durability and high-quality performance.

## Features and benefits

- KP212 and KP232
  - Up to 120 users
  - Illuminated hardened keys
  - Sounder
  - Doorbell relay
  - Weather resistant
  - Programmable 00-99 second relay activation time
  - Remote trigger input (REX)
  - Bell output (timed or continuous)
  - Applications:
    - Heavy traffic
    - Indoor/outdoor
- KP2000
  - Features and benefits on back

## Reader specifications



Feature set	KP212	KP232	KP2000E	KP2000EM
Mounting	Mullion	Mullion	Single gang/flush	Single gang/flush
Users	120	120	500	500
PIN length	1-6 digits	1-6 digits	1-10 digits	1-10 digits
Duty cycles	Medium	Medium	Medium	Heavy-duty
Back light	Yes	Yes	Yes	No
Keys	Hard plastic	Hard plastic	Heavy-duty plastic	Heavy-duty metal with braille
Weather resistant	Indoor/outdoor	Indoor/outdoor	Indoor/outdoor	Indoor/outdoor
Doorbell key	Yes	Yes	No	No
Wiegand output	No	No	No	No
Remote trigger (REX)	Yes	Yes	Yes	Yes
Access control functionality	Programmable relay activation time (0-99 seconds). Perfect for electric or magnetic locks requiring momentary control.	4 dedicated relay outputs (lock release, door forced, door propped and alarm shunt . Plastic keypad acts as controller. Metal keypad communicates to controller.)	Monitors DPS, controls various electronic hardware, triggers door propped, forced door alert or alarm shunt	Monitors DPS, controls various electronic hardware, triggers door propped, forced door alert or alarm shunt
Relays	2 relays (main and aux)	Main, prop door, forced door and alarm shunt relay	2 Form C	2 Form C
Outputs	2 independent (configurable)	4 independent (dedicated)	2 independent	Programmable
Finish	Aluminum	Aluminum and plastic	Aluminum	Aluminum
UL 294	No	No	Yes	Yes

- KP2000 features
  - 500 users
  - Door position input
  - Request-to-exit input
  - 2 Form C SPDT relay outputs – default for access control function
  - Sounder for key press and alert conditions
  - Option for secure installation with control electronics in protected area
  - Widest array of user type options including single use and two man rule
  - 10-30 VDC and 12-24 VAC operation
  - Over-voltage protection for reliable operation
  - Single-gang flush mount design
  - Indoor/outdoor use
  - Keypad programmable
  - Key press feedback via sounder and yellow LED
  - Built-in assignable sounder
  - Bi-color red/green LED indicates relay status

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## Credentials



This section of the Electronic Access Control catalog covers smart, multi-technology and proximity credentials.

### Overview

Schlage® offers credentials that fit every step along the continuum of your security strategy. Starting with the most basic key, to the most sophisticated smart card. Every opening has its own needs and Schlage delivers a solution to fit them all.

The comprehensive credential offering from Schlage features mobile, smart, multi-technology and proximity technologies as well as a variety of form factors to meet the security needs of virtually any customer.

There are many types of smart cards on the market today, but unlike proximity, smart credentials are not all equal. Schlage continually strives to identify the best technologies in the world to ensure we're offering the best solutions for our customers to meet their continued goals for safety and security.

Credentials from Schlage also provide unique advantages that help your business thrive and make doing business easier. The CardTrax™ card tracking program offers a fully managed solution to ensure card number sequences are never duplicated, providing added security and flexibility all at no extra charge.

Custom artwork and laser engraving are also available on all Schlage ISO and clamshell cards.

**Special Note:** As of September 2017, all aptiQ® and XceedID® readers will transition to the Schlage brand. Although the brand name has changed, all part numbers and products remain the same.

Forward and backward compatibility does not change and products may be used interchangeably.

## Smart credentials

Schlage offers a variety of smart credential technology options to fit the needs and budget of most every application. All smart credentials from Schlage are encrypted and secure, but also based on open, global standards, ensuring a future of headache-free flexibility and scalability. Schlage smart credentials offer a single credential solution for secure physical and logical access and are available in a variety of form factors to fit any facility or business need, including ISO style cards, clamshell cards, wristbands, key fobs and adhesive patches. All Schlage smart cards are compliant with international standard ISO 14443.

Schlage 13.56 MHz contactless smart credentials are offered with the following industry standard MIFARE technologies:

### MIFARE Classic

Schlage credentials using MIFARE® Classic technology are ideal for facilities with moderate security needs, and for businesses that want to use credentials to support multiple business functions.

- Simple, fixed memory structure
- Freely programmable memory
- Multiple memory options and form factors

### MIFARE Plus

MIFARE Plus brings advanced security, with the functionality of the MIFARE Classic credential. A cost efficient solution that's perfect for access control applications.

- Simple, freely programmable, fixed memory structure
- 128 AES encryption used for authenticity, confidentiality and integrity
- Multiple form factors

### MIFARE® DESFire® EV1

MIFARE® DESFire® EV1 offer the highest in security from Schlage and delivers the perfect balance of security, speed and performance. Its open protocol design allows future seamless integration of other applications.

- Flexible file system / flexible memory organization
- Fast and secure data transmission
- 128 AES encryption used for authenticity, confidentiality and integrity
- Multiple memory options and form factors

## Schlage multi-technology credentials

Schlage multi-technology credentials combine 125 kHz proximity and 13.56 MHz smart technologies in one contactless card, simplifying access control solutions and offering flexibility for users. The credentials are compatible with proximity, smart and multi-technology card readers, allowing facilities ultimate flexibility. The open architecture design also ensures fast data transfer rates.

- Includes 125 kHz proximity and 13.56 MHz smart technologies in one credential
- Compatible with Schlage and other industry manufacturers' readers and electronic locks
- CardTrax™ account tracking program helps keep track of card numbers at no additional cost.
- Lifetime warranty against manufacturer's defects
- Custom artwork and laser engraving available
- Available in ISO style cards and can include a magnetic stripe.
- Available in multiple memory capacities

## Schlage proximity credentials

Schlage proximity credentials provide a convenient access control solution for facilities with less demanding security needs. Schlage proximity credentials are compatible with most industry-leading proximity readers, allowing them to easily integrate with new and existing proximity access control systems.

- 125 kHz proximity technology available in multiple form factors
- Easily integrates into existing proximity systems
- CardTrax account tracking program helps keep track of card numbers at no additional cost.
- Lifetime warranty against manufacturer's defects
- Custom artwork and laser engraving available
- Available in ISO style cards and can include a magnetic stripe.

## Mobile credentials

Utilizing near field communication (NFC) technology, Schlage mobile credentials (formerly aptiQmobile™) turn a smart phone app into an ID card. This provides the convenience of using a phone for access control and a variety of other applications such as vending, secure printing, discounts or anything else your ID card is used for today.

From highly durable clamshell-style cards to the standard ISO style cards, keyfobs or PVC adhesive disks, Schlage offers a variety of credential formats to support a broad range of access control applications.



Clamshell card



ISO glossy card



Keyfob/thin keyfob



Wristbands



PVC adhesive patch



PVC adhesive disk



Mobile credential

### 13.56 MHz smart credentials

Model number	9420	9451	9520	9551	9558
Credential type	Clamshell	Clamshell	ISO glossy white <sup>1</sup>	ISO glossy white <sup>1</sup>	ISO glossy white <sup>1</sup>
Credential technology; ISO standard	MIFARE Classic®; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443
Magnetic stripe available	No	No	Yes <sup>2</sup>	Yes <sup>2</sup>	Yes <sup>2</sup>
Dimensions (H x W x T in inches)	3.37 x 2.125 x 0.075	3.37 x 2.125 x 0.075	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033
Slot punch (printed guide)	Vertical (punched)	Vertical (punched)	Vertical or horizontal	Vertical or horizontal	Vertical or horizontal
Memory capacity; application sectors	2.5k bit; 5 sectors	1K byte/8k bit; 16 sectors	2.5k bit; 5 sectors	1K byte/8k bit; 16 sectors	4K byte/32k bit; 40 sectors

### 13.56 MHz smart credentials

Model number	9651	9651T	9351	9751	9758
Credential type	Keyfob	Thin keyfob	Silicone wristband	PVC adhesive patch	PVC adhesive patch
Credential technology; ISO standard	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443
Magnetic stripe available	No	No	No	No	No
Dimensions (H x W x T in inches)	2 x 1.24 x 0.38	1.77 x 1.18 x .06	0.63 x 7.68 x 0.295	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033
Slot punch (printed guide)	Keyring	Keyring	N/A	Vertical	Vertical
Memory capacity; application sectors	1K byte/8k bit; 16 sectors	1K byte/8k bit; 16 sectors	1K byte/8k bit; 16 sectors	1K byte/8k bit; 16 sectors	4K byte /32k bit; 40 sectors

### 13.56 MHz smart credentials

Model number	5451	5551	5540	5652T	5751
Credential type	Clamshell	ISO glossy white <sup>1</sup>	ISO glossy white <sup>1</sup>	Thin keyfob	PVC adhesive patch
Credential technology; ISO standard	MIFARE Plus® SE; ISO 14443	MIFARE Plus SE; ISO 14443	MIFARE Plus S; ISO 14443	MIFARE Plus SE; ISO 14443	MIFARE Plus SE; ISO 14443
Magnetic stripe available	No	Yes <sup>2</sup>	Yes <sup>2</sup>	No	No
Dimensions (H x W x T in inches)	3.37 x 2.125 x 0.075	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033	1.77 x 1.18 x 0.06	3.37 x 2.125 x 0.033
Slot punch (printed guide)	Vertical (punched)	Vertical or horizontal	Vertical or horizontal	Keyring	Vertical
Memory capacity; application sectors	1K byte/8k bit	1K byte/8k bit	4K byte/32k bit	2K byte/16k bit	1K byte/8k bit

### 13.56 MHz smart credentials

Model number	8420/8440/8480	8520/8540/8580	8620/8640/8680	8720/8740/8780
Credential type	Clamshell	ISO glossy white <sup>1</sup>	Keyfob	PVC adhesive patch
Credential technology; ISO standard	MIFARE® DESFire® EV1; ISO 14443	MIFARE DESFire EV1; ISO 14443	MIFARE DESFire EV1; ISO 14443	MIFARE DESFire EV1; ISO 14443
Magnetic stripe available	No	Yes <sup>2</sup>	No	No
Dimensions (H x W x T in inches)	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033	2 x 1.24 x 0.38	3.37 x 2.125 x 0.033
Slot punch (printed guide)	Vertical (punched)	Vertical or horizontal	Keyring	Vertical
Memory capacity; application sectors	2K byte/16k bit 4K byte/32k bit 8K byte/64k bit	2K byte/16k bit 4K byte/32k bit 8K byte/64k bit	2K byte/16k bit 4K byte/32k bit 8K byte/64k bit	2K byte/16k bit 4K byte/32k bit 8K byte/64k bit

<sup>1</sup> ISO glossy white style credentials are made from composite material, are printable, and can include a magnetic stripe as an option

<sup>2</sup> Add M1 to the model number for a magnetic stripe when ordering. Vertical slot punch not available on magnetic stripe cards



#### 125 kHz/13.56 MHz multi-technology credentials

Model number	9951	9958	9691T
Credential type	ISO glossy white <sup>1</sup>	ISO glossy white <sup>1</sup>	Thin keyfob
Credential technology; ISO standard	Proximity/MIFARE Classic; ISO 14443	Proximity/MIFARE Classic; ISO 14443	Proximity/MIFARE Classic; ISO 14443
Magnetic stripe available	Yes <sup>2</sup>	Yes <sup>2</sup>	No
Dimensions (H x W x T in inches)	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033	1.77 x 1.18 x 0.06
Slot punch (printed guide)	Vertical or horizontal	Vertical or horizontal	Keyring
Memory capacity; application sectors	1K byte/8k bit; 16 sectors	4K byte/32k bit; 40 sectors	1K byte/8k bit; 16 sectors

#### 125 kHz/13.56 MHz multi-technology credentials

Model number	5951	5940	5692T	8920/8940/8980
Credential type	ISO glossy white <sup>1</sup>	ISO glossy white <sup>1</sup>	Thin keyfob	ISO glossy white <sup>1</sup>
Credential technology; ISO standard	Proximity/MIFARE Plus SE; ISO 14443	Proximity/MIFARE Plus S; ISO 14443	Proximity/MIFARE Plus SE; ISO 14443	Proximity/MIFARE DESFire EV1; ISO 14443
Magnetic stripe available	Yes <sup>2</sup>	Yes <sup>2</sup>	No	Yes <sup>2</sup>
Dimensions (H x W x T in inches)	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033	1.77 x 1.18 x 0.06	3.37 x 2.125 x 0.033
Slot punch (printed guide)	Vertical or horizontal	Vertical or horizontal	Keyring	Vertical or horizontal
Memory capacity; application sectors	1K byte/8k bit;	4K byte/32k bit;	2K byte/16k bit;	2K byte/16k bit 4K byte/32k bit 8K byte/64k bit

#### 125 kHz proximity credentials

Model number	7410	7510	7610	7610T	7010
Credential type	Clamshell	ISO glossy white <sup>1</sup>	Keyfob	Thin keyfob	PVC adhesive disk
Credential technology	Proximity	Proximity	Proximity	Proximity	Proximity
Magnetic stripe available	No	Yes <sup>2</sup>	No	No	No
Dimensions (H x W x T in inches)	3.37 x 2.125 x 0.075	3.37 x 2.125 x 0.033	2 x 1.24 x 0.38	1.77 x 1.18 x .06	1.38 in or 35mm diameter
Slot punch (printed guide)	Vertical (punched)	Vertical or horizontal	Keyring	Keyring	N/A

<sup>1</sup>ISO-Glossy White style credentials are made from composite material, are printable, and can include a magnetic stripe as an option

<sup>2</sup>Add M1 to the model number for a magnetic stripe when ordering. Vertical slot punch not available on magnetic stripe cards

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# Smart credentials



## Overview

Schlage® offers a variety of smart credential technology options to fit the needs and budget of most every application. All smart credentials from Schlage are encrypted and secure, but also based on open, global standards, ensuring a future of headache-free flexibility and scalability. Schlage smart credentials offer a single credential solution for secure physical and logical access and are available in a variety of form factors to fit any facility or business need, including ISO style cards, clamshell cards, wristbands, key fobs and adhesive patches. All Schlage smart cards are compliant with international standard ISO 14443. Schlage 13.56 MHz contactless smart credentials are offered with the following industry standard MIFARE technologies:

### MIFARE® Classic

Schlage credentials using MIFARE® Classic technology are ideal for facilities with moderate security needs, and for businesses that want to use credentials to support multiple business functions.

- Simple, fixed memory structure
- Freely programmable memory
- Multiple memory options and form factors

### MIFARE Plus

MIFARE Plus brings advanced security, with the functionality of the MIFARE Classic credential. A cost efficient solution that's perfect for access control applications.

- Simple, freely programmable, fixed memory structure
- 128 AES encryption used for authenticity, confidentiality and integrity
- Multiple form factors

### MIFARE® DESFire® EV1

MIFARE® DESFire® EV1 offers the highest in security from Schlage and delivers the perfect balance of security, speed and performance. Its open protocol design allows future seamless integration of other applications.

- Flexible file system / flexible memory organization
- Fast and secure data transmission
- 128 AES encryption used for authenticity, confidentiality and integrity
- Multiple memory options and form factors

## Features and benefits

- Open architecture design is built on ISO 14443A standards, providing for a faster data transfer speed
- Offered in clamshell, ISO style cards, keyfobs, wristbands and adhesive patches
- Utilizes MIFARE Classic®, MIFARE Plus® or MIFARE® DESFire® EV1
- Custom artwork and laser engraving available for clamshell and ISO style cards



Clamshell card



Wristbands



ISO glossy card



PVC adhesive patch



Keyfob/thin keyfob



Mobile credential

## 13.56 MHz smart credentials

Model number	9420	9451	9520	9551	9558	9651	9651T	9351
Credential type	Clamshell	Clamshell	ISO glossy white <sup>1</sup>	ISO glossy white <sup>1</sup>	ISO glossy white <sup>1</sup>	Keyfob	Thin keyfob	Silicone wristband
Credential technology; ISO standard	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443
Magnetic stripe	No	No	Yes <sup>2</sup>	Yes <sup>2</sup>	Yes <sup>2</sup>	No	No	No
Dimensions (H x W x T in inches)	3.37 x 2.125 x 0.075	3.37 x 2.125 x 0.075	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033	2 x 1.24 x 0.38	1.77 x 1.18 x .06	0.63 x 7.68 x 0.295
Slot punch (printed guide)	Vertical (punched)	Vertical (punched)	Vertical or horizontal	Vertical or horizontal	Vertical or horizontal	Keyring	Keyring	N/A
Memory capacity; application sectors	2.5k bit; 5 sectors	1K byte/8k bit; 16 sectors	2.5k bit; 5 sectors	1K byte/8k bit; 16 sectors	4K byte/32k bit; 40 sectors	1K byte/8k bit; 16 sectors	1K byte/8k bit; 16 sectors	1K byte/8k bit; 16 sectors

## 13.56 MHz smart credentials

Model number	9751	9758	5451	5551	5540
Credential type	PVC adhesive patch	PVC adhesive patch	Clamshell	ISO glossy white <sup>1</sup>	ISO glossy white <sup>1</sup>
Credential technology; ISO standard	MIFARE Classic; ISO 14443	MIFARE Classic; ISO 14443	MIFARE Plus SE; ISO 14443	MIFARE Plus SE; ISO 14443	MIFARE Plus S; ISO 14443
Magnetic stripe	No	No	No	Yes <sup>2</sup>	Yes <sup>2</sup>
Dimensions (H x W x T in inches)	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.075	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.033
Slot punch (printed guide)	Vertical	Vertical	Vertical (punched)	Vertical or horizontal	Vertical or horizontal
Memory capacity; application sectors	1K byte/8k bit; 16 sectors	4K byte/32k bit; 40 sectors	1K byte/8k bit	1K byte/8k bit	4K byte/32k bit

## 13.56 MHz smart credentials

Model number	5652T	5751	8420, 8440 8480	8520, 8540 8580	8620, 8640 8680	8720, 8740 8780
Credential type	Thin keyfob	PVC adhesive patch	Clamshell	ISO glossy white <sup>1</sup>	Keyfob	PVC adhesive patch
Credential technology; ISO standard	MIFARE Plus SE; ISO 14443	MIFARE Plus SE; ISO 14443	MIFARE DESFire EV1; ISO 14443	MIFARE DESFire EV1; ISO 14443	MIFARE DESFire EV1; ISO 14443	MIFARE DESFire EV1; ISO 14443
Magnetic stripe	No	No	No	Yes <sup>2</sup>	No	No
Dimensions (H x W x T in inches)	1.77 x 1.18 x 0.06	3.37 x 2.125 x 0.033	3.37 x 2.125 x 0.075	3.37 x 2.125 x 0.033	2 x 1.24 x 0.38	3.37 x 2.125 x 0.033
Slot punch (printed guide)	Keyring	Vertical	Vertical (punched)	Vertical or horizontal	Keyring	Vertical
Memory capacity; application sectors	2K byte/16k bit	1K byte/8k bit	2K byte/16k bit 4K byte/32k bit 8K byte/64k bit	2K byte/16k bit 4K byte/32k bit 8K byte/64k bit	2K byte/16k bit 4K byte/32k bit 8K byte/64k bit	2K byte/16k bit 4K byte/32k bit 8K byte/64k bit

**Limited lifetime warranty** - Credentials have a lifetime warranty against manufacturers defects. See sales policy for complete warranty details.

<sup>1</sup> ISO Glossy White style credentials are made from composite material, are printable, and can include a magnetic stripe as an option.

<sup>2</sup> Add M1 to the model number for a magnetic stripe when ordering. Vertical slot punch not available on magnetic stripe cards.

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# Multi- technology credentials

## Overview

Schlage® multi-technology credentials combine 125 kHz proximity and 13.56 MHz smart technologies in one contactless card, simplifying access control solutions and offering flexibility for users. The credentials are compatible with proximity, smart and multi-technology card readers, allowing facilities ultimate flexibility. The open architecture design also ensures fast data transfer rates.



## Features and benefits

- Includes 125 kHz proximity and 13.56 MHz smart technologies in one credential
- Compatible with Schlage and other industry manufacturers' readers and electronic locks
- CardTrax™ account tracking program helps keep track of card numbers at no additional cost.
- Lifetime warranty against manufacturer's defects
- Custom artwork and laser engraving available
- Available in ISO style cards and can include a magnetic stripe.
- Available in multiple memory capacities



## 125 kHz/13.56 MHz multi-technology credentials

Model number	9951	9958	9691T	5951
Credential type	ISO glossy white <sup>1</sup>	ISO glossy white <sup>1</sup>	Thin keyfob	ISO glossy white <sup>1</sup>
Credential technology; ISO standard	Proximity/MIFARE Classic; ISO 14443	Proximity/MIFARE Classic; ISO 14443	Proximity/MIFARE Classic; ISO 14443	Proximity/MIFARE Plus SE; ISO 14443
Magnetic stripe available	Yes <sup>2</sup>	Yes <sup>2</sup>	No	Yes <sup>2</sup>
Dimensions (H x W x D)	3.37" x 2.125" x 0.033"	3.37" x 2.125" x 0.033"	1.77" x 1.18" x 0.06"	3.37" x 2.125" x 0.033"
Slot punch (printed guide)	Vertical or horizontal	Vertical or horizontal	Keyring	Vertical or horizontal
Memory capacity; application sectors	1K byte/8k bit; 16 sectors	4K byte/32k bit; 40 sectors	1K byte/8k bit; 16 sectors	1K byte/8k bit
Warranty	Limited lifetime - Credentials have a lifetime warranty against manufacturers defects. See sales policy for complete warranty details.			



## 125 kHz/13.56 MHz multi-technology credentials

Model number	5940	5692T	8920/8940/8980
Credential type	ISO glossy white <sup>1</sup>	Thin keyfob	ISO glossy white <sup>1</sup>
Credential technology; ISO standard	Proximity/MIFARE Plus S; ISO 14443	Proximity/MIFARE Plus SE; ISO 14443	Proximity/MIFARE DESFire EV1; ISO 14443
Magnetic stripe available	Yes <sup>2</sup>	No	Yes <sup>2</sup>
Dimensions (H x W x D)	3.37" x 2.125" x 0.033"	1.77" x 1.18" x 0.06"	3.37" x 2.125" x 0.033"
Slot punch (printed guide)	Vertical or horizontal	Keyring	Vertical or horizontal
Memory capacity; application sectors	4K byte/32k bit	2K byte/16k bit	2K byte/8k bit; 4K byte/32k bit; 8K byte/64k bit
Warranty	Limited lifetime - Credentials have a lifetime warranty against manufacturers defects. See sales policy for complete warranty details.		

<sup>1</sup> ISO glossy white style credentials are made from composite material, are printable, and can include a magnetic stripe as an option

<sup>2</sup> Add M1 to the model number for a magnetic stripe when ordering. Vertical slot punch not available on magnetic stripe cards.

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# Proximity credentials



## Overview

Schlage® proximity technology is an easy, convenient access control solution. Proximity technology, which operates on 125 kHz frequency, is easily integrated into existing legacy proximity systems or ideal for a new installation. Proximity credentials can easily fit into a wallet or may be used as a strapped or clipped badge.

From highly durable clamshell-style cards, to basic ISO style cards, to keyfobs and adhesive disks, Schlage offers several different form factors to meet the needs of many different customers.

Proximity credentials by Schlage are compatible with all industry leading proximity readers and are also ISO compliant. These credentials also have a passive design, requiring no batteries or maintenance for the life of the card.

## Features and benefits

- Clamshell style offers high durability, and is suitable for harsh environments
- ISO style card is similar in size and thickness to a credit card, and has the ideal surface to print custom artwork, images, and photographs for identification
- Keyfob proximity credentials can easily be attached to any keyring for convenience
- PVC adhesive disk proximity credentials can be adhered to any frequently used surface
- Custom artwork and laser engraving available for clamshell and ISO style cards



## 125 kHz proximity credentials

Model number	7410	7510	7610	7610T	7010
Credential type	Clamshell	ISO glossy white <sup>1</sup>	Keyfob	Thin keyfob	PVC adhesive disk
Credential technology; ISO standard	Proximity	Proximity	Proximity	Proximity	Proximity
Magnetic Stripe available	No	Yes <sup>2</sup>	No	No	No
Dimensions (H x W x T)	3.37" x 2.125" x 0.075"	3.37" x 2.125" x 0.033"	2" x 1.24" x 0.38"	1.77" x 1.18" x .06"	1.38 or 35 mm diameter
Slot punch (printed guide)	Vertical (punched)	Vertical or horizontal	Keyring	Keyring	N/A
Warranty	Limited lifetime - Credentials have a lifetime warranty against manufacturers defects. See sales policy for complete warranty details.				

<sup>1</sup> ISO glossy white style credentials are made from composite material, are printable, and can include a magnetic stripe as an option

<sup>2</sup> Add M1 to the model number for a magnetic stripe when ordering. Vertical slot punch not available on magnetic stripe cards.

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# Mobile credentials



## Overview

Utilizing near field communication (NFC) technology, Schlage® mobile credentials (formerly aptiQmobile™) turn a smart phone app into an ID card. This provides the convenience of using a phone for access control and a variety of other applications such as vending<sup>1</sup>, secure printing, discounts, or anything else your ID card is used for today.

Not only is it convenient, but a Schlage mobile credential offers a higher level of security than the average ID card, including advanced encryption and an optional passcode screen lock to help ensure that sensitive data is not compromised.

Schlage mobile credentials can be used on the same readers that Schlage smart cards are used on today, including AD Series multi-technology readers<sup>2</sup>, so a facility can migrate to mobile credentials easily and at their own pace. Or issue mobile credentials to some employees while giving others cards; the system is designed to meet dynamic security needs.

Schlage mobile credentials can be assigned using existing access control software<sup>3</sup> or with the web-based Admin Portal. Mobile credentials are created and issued by the account administrator via the Schlage cloud service. Then the user downloads the free app and verifies their identity before downloading the secure credential to their phone.

## Features and benefits

- Works with any phone carrier
- Eliminates need to print ID's and keep inventory of cards on hand
- Painless replacement of lost cards anytime or anywhere
- Screen lock feature on phone keeps credential safe if phone is lost or stolen
- Credential information stored in same memory location as other app passwords and sensitive information
- Uses a 128 bit AES encrypted credential
- Patent-pending anti-playback technology prevents cloning

<sup>1</sup> When used in conjunction with a closed loop payment system

<sup>2</sup> With AD Series MT2/MTK2 reader module

<sup>3</sup> Developer network participants

# Compatibility

## Phones

Schlage® has tested and certified a variety of phones for use with our mobile credentials, including popular models from these manufacturers. In addition, Schlage mobile credentials work with any phone carrier.

- Samsung
- HTC
- Kyocera
- LG
- Motorola
- OnePlus One
- Sony

New phones models are launched regularly, most of which are expected to be compatible with aptiQmobile™ given the following requirements:

- Device is NFC capable
- Android OS (4.4 and higher)

Contact your local sales representative if you have a question on a specific phone's compatibility.

\*Available throughout North America and in other select global regions. Not currently compatible with Windows or Blackberry.

## Readers

Certified Android and Apple devices are compatible with:

- Schlage or aptiQ smart and multi-technology readers <sup>1</sup>
- AD Series multi-technology readers <sup>2</sup>

1 Excluding XF and SXF readers

2 With AD Series MT2/MTK2 reader module

## A higher level of security

All Schlage mobile credentials are secured using 128bit AES encryption, making these mobile credentials more secure than the average ID card. In addition, key diversification, mutual authentication and a patent-pending anti-playback technology are also used as additional layers of security to help ensure the user's information is protected. On top of that, the password protected screen lock feature on mobile phones doesn't exist on a physical ID card. Pairing its increased level of security with all of the other conveniences of a mobile phone, Schlage mobile credentials are a superior solution for your security needs.

For more information or to order Schlage mobile credentials, contact our sales team at 855.248.0302 or visit [us.allegion.com/credentials](http://us.allegion.com/credentials)

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## Biometrics



This section of the Electronic Access Control catalog covers HandKey® biometric hand geometry readers and other accessories that can be easily integrated into an access control system.

### Overview

HandKey® biometric hand geometry readers from Schlage provide increased security for the most important openings in your facilities. The HandKey utilizes the size and shape of the hand to verify the identity of the user, ensuring that only authorized users can access the door. While other credentials can be lost, stolen or duplicated without authorization, the HandKey eliminates this risk. The open-architecture design of the HandKey makes integrating biometric HandReaders into critical access points easy, simple, and seamless for new or existing access control systems.

### Features

The HandKey provides the flexibility to be used as a stand-alone device that protects a single critical access point, or integrated into virtually any new or existing access control system in the market. Standalone operation is enabled utilizing the built-in door lock output, and a programmable auxiliary output that can be used to output audible or silent alarms, or activate lighting systems or other peripheral devices. The same HandKey reader can be set up to operate in card reader emulation mode, outputting Wiegand data to an access control system. This enables the HandKey to look just like a card reader to your access control system, ensuring real-time monitoring and communication between the device and your access control panel.

Event monitoring alerts you in the event that the device has been tampered with, when a user is refused after exceeding the user definable number of verification attempts, or when the user is under duress. With the HandKey, you can also customize security levels, time zones, holidays and languages based on your unique needs.

## Benefits

The HandKey creates an affordable way to provide the highest level of security possible for your access control application. Verification of identity takes less than one second, making it ideal for even high throughput applications.

The HandReader ensures that you are only allowing the correct people, not just the proper cards, to access the most important areas of your facility. The cost commonly associated with managing an access control system can be minimized with the help of a HandKey. Since the credential cannot be forgotten or stolen, you eliminate the need to replace lost, damaged, or stolen cards or keys.

The HandKey readers measure the size and shape of a user's hand, including length, width, thickness and surface area, to verify identity. The HandKey does not read fingerprints or palm prints, and works effectively even if the user's hand is wet, dirty or injured.

Designed upon an open architecture platform, the HandKey ensures that you can incorporate biometrics where you need them, whether it is on a single high-security door within your facility, or on many openings throughout your whole organization as part of an access control system.

## Options

The HandKey II has several options to choose from including:

- **Communications:** Ethernet or modem communication module options to meet the needs of your communication environment.
- **Memory:** Field upgradable and expandable memory options to support from 512 to 32,512 users.
- **Outdoor enclosures:** To protect the reader from the elements and enable operations in a variety of outdoor or other harsh environments.
- **Card reader and keypads:** A variety of reader mounted or wall mounted options, including proximity, magnetic stripe, barcode, HID Legacy iCLASS®, and Mifare Classic.
- **Mounting options:** Enable mounting on table-top or surface wall-mount.

## Accessories

A variety of HandKey accessories are available to maximize the flexibility of your solution:

- HandNet Lite provides an easy way to manage hand templates for up to 64 HandKeys.
- HandNet for Windows enables you to control and monitor a network of HandKey® readers. With one program you can monitor activity and alarms on all readers, manage hand templates between readers, and control the access of each user. HandNet for Windows comes in three tiers to enable flexibility based upon the size of your system. These tiers are upgradable for added flexibility to meet your future needs as your application grows.

## HandKey II

Construction	Polycarbonate housing with aluminum fingerpins
Base users	512 users
User memory options	Expandable to 32,512 users
Template size	9 bytes
Verification time	Less than one second for comparison to reference template
ID number length	1-10 digits
Duress code	1 leading digit, user definable

## Communications

RS232	Baud rate 300 bps to 28,800 bps
RS485	Baud rate 300 bps to 28,800 bps
RS422	Baud rate 300 bps to 28,800 bps
Optional Ethernet	100 base T
Field Installable	10base T

## Mounting options

Table mount	Option available
Surface wall mount	Standard
Recessed wall mount	N/A

## Other options and requirements

Left hand option	N/A
Antimicrobial coating on platen	Standard
Blue hand outline	Standard
Outdoor and enclosure options	Heater option available; polyethylene enclosure with UV resistance available; metal water tight enclosure available
Dimensions (H x W x D)	11.65 in x 8.85 in x 8.55 in. (29.6 cm x 22.5 cm x 21.7 cm)
Power requirements	12 to 24 VDC or 12 to 24 VAC 50-60 Hz 7 watts (without options)
Weight	5.3 lbs. (2.4 kgs.) (Without battery back-up or wall plate)

## Temperature

Operating	0° C to +45° C /32° F to 113° F
Non-operating (storage)	-10° C to +60° C /14° F to 140° F

## Relative humidity

Operating	20% to 80% RH non-condensing
Non-operating (storage)	5% to 85% RH non-condensing

## Inputs

Standard	26 bit, 9 bit ID Wiegand
Optional	Mag stripe, bar code, smart card
HandKey Inputs	Request-to-exit, door switch input, 2 auxiliary inputs

## Outputs

Door control	Lock output
Card reader emulation mode	Wiegand (standard), mag stripe, bar code
Auxiliary output	1 programmable auxiliary
Outputs to peripheral devices	Audible or silent alarms, door locks, lighting systems

## Event monitoring

Tamper	HandKey opened or removed
ID refused	User not verified after user definable number of tries exceeded
Duress	User entered duress code digit
Power failure	HandKey switched to optional battery power

## Programmable HandKey commands

Add/remove users; set global operating thresholds; set individual user data (authority or threshold levels, time zones); transmit data from master to remote; data received by master from remote; transmit/receive data from optional software; check status of door (tamper, door monitor switch); time zones – 62 total (2 fixed, 60 programmable); set language; set date format, date and time; edit holidays

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# HandKey® II

Biometric hand geometry reader



## Overview

### Nothing is tougher!

Our HandKey II product is ideal for applications where consistent and dependable security is of prime importance. The product is easy to maintain, and provides an ideal mix of convenience, security and peace of mind.

### Top 10 reasons to select hand geometry

#### Field proven reliability

- Hundreds of thousands of HandReaders are installed all over the world in diverse applications, providing millions of error free transactions every day

#### Convenience and cost savings

- Incredibly fast installation and intuitive enrollment increases user convenience
- Verification in less than one second makes it ideal for high throughput applications
- High product quality + low maintenance costs = low total cost of ownership
- Eliminate the worry of lost, stolen or unauthorized transfer of ID cards plus the cost of purchasing and maintaining these cards

#### Eliminate privacy concerns

- Hand geometry technology is well accepted by end users, as there are no fingerprints or palm prints taken and the user does not leave behind any trace of their biometric data

#### Amazing versatility

- HandKeys can be used as standalone systems to protect critical access points and can be easily integrated into virtually every new or existing access control system in the market today
- Ability to customize user-specific security levels, time zones, holidays and languages based on your needs
- Optional access control template management software allows the HandKeys to form a system that communicates alarms and transactions in real time, provides activity reports, allows supervised on-site or remote user enrollment and expiring privileges for temporary access
- Environmental enclosures and integrated heater units make the HandKey an ideal solution for outdoor usage

## Features and benefits

- Convenience of multiple credential options such as proximity, magnetic stripe, barcode, HID Legacy iCLASS® and MIFARE Classic®
- Optional field installable Ethernet module
- Outdoor enclosure options that make the HandKey II an ideal solution for outdoor usage
- Field upgradable and expandable memory options from 512 to 32,512 users for scalable security that grows with your needs
- Three user-definable outputs to connect to auxiliary devices such as audible or silent alarms, door locks or lighting systems
- Ability to write the industry's most compact biometric template on a card instead of in a database results in higher security and unlimited user capacity
- Specially formulated antimicrobial coating with silver ions on the platen to inhibit the growth of bacteria, mold and mildew to mitigate hygiene concerns. The coating is safe and lasts for the life of the product
- Blue hand outline on the platen facilitates easy enrollment and reduces error rates during verification

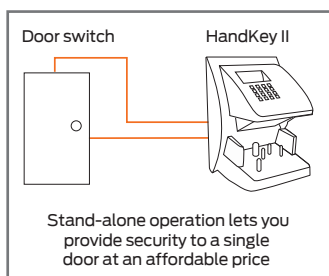


## Door control and monitoring

Each HandKey II is a complete, integrated door controller providing lock operation, request-for-exit and alarm monitoring. Biometric templates and decision-making capability reside locally, ensuring your doors are always secure and will continue to operate properly even if all communication to the main access control system is lost.

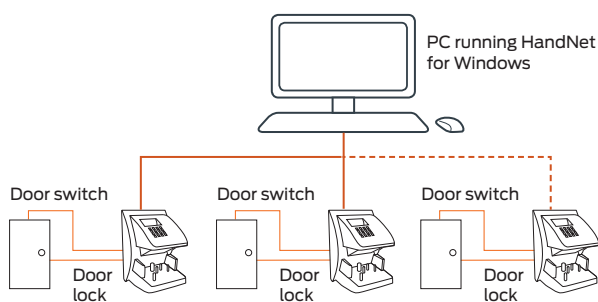
### Standalone or fully integrated

HandKey readers can be used as a stand-alone unit or as part of an integrated access control system. The units easily integrate into existing systems using the card reader emulation mode. Or, by using the HandNet software for template management, thousands of units can be linked together to form a system that communicates alarms and transactions provides activity, user and systems reports, and allows supervised user enrollment and deletions at any reader. A variety of communications options, including dial-up modems and Ethernet, allow you to design a system that's right for your facilities.



### In a network

Schlage's HandNet software links an unlimited number of HandKey units into an integrated door access control system. All alarms and transactions report back to the central computer, making door and alarm monitoring easy and efficient. Activity, user and system reports can be easily generated. The central computer handles all hand template management allowing supervised enrollment at any reader and system wide deletions. An optional internal modem lets you include remote site operations.



### Specifications

Part number	HK-2
Size (W x H x D)	8.85 in x 11.65 in x 8.55 in (22.3 cm x 29.6 cm x 21.7 cm)
Weight	6 lbs (2.7 kg)
Power	12 to 24 VDC or 12 to 24 VAC 50-60 Hz, 7 watts
Environment	Operating: 32°F to 113°F (0°C to 45°C) Relative humidity: 20% to 80% NC Non-operating (storage): 14°F to 140°F (-10°C to 60°C) Relative humidity: 5% to 85% NC
Verification time	Less than one second
Memory retention	Up to 5 years via the standard internal lithium battery
Transaction storage	5120 transactions
ID number length	1 to 10 digits from keypad or card
User capacity	512 users with field upgrade up to 32,512 users
Template size	9 bytes
User record size	Standard units 16 bytes, -XL models 77 bytes
Communications	RS-422 (4 wire) RS-232 serial printer support or PC communication
Inputs	Standard 26 bit Wiegand, 9-bit ID Optional: Configurations contact factory HandKey Input: Request-to-exit, door switch input, 2 auxiliary inputs
Outputs	Door control: Lock Output Card reader emulation mode: Wiegand, Magstripe, 1 programmable auxiliary Outputs to peripheral devices: Audible or silent alarms, door locks, lighting systems
Lock/Aux controls	Output (sinks to 0VDC, 100mA max)
Event Monitoring	Tamper: HandKey opened or removed Door monitor switch ID refused: User not verified after user definable number of tries exceeded Duress: User entered duress code digit Power failure: HandKey switched to optional battery
Setup functions*	<ul style="list-style-type: none"><li>Add/remove users</li><li>Set global operating thresholds</li><li>ID refused: User not verified after user definable</li><li>Define individual user parameters</li><li>Time zones - 2 fixed; 60 user definable time zones</li><li>Set language</li><li>Set format: date and time</li><li>Define holidays</li></ul>
Antimicrobial	Antimicrobial permeated platen
Options	<b>BB-250</b> - Operational battery backup <b>EM-801</b> - Memory expansion - 9,728 users <b>EM-803</b> - Memory expansion - 32,512 users <b>EN-201</b> - Ethernet communications module <b>MD-500</b> - Internal 14.4 baud dial-up modem <b>WAR-EXT</b> - 1 year extended warranty

\* Software defined values will override local setup functions  
Specifications subject to change. Please check with your system vendor for details.

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# Biometric terminal options and accessories for HandKey®



Schlage offers a number of accessories for access control HandReader terminals. From networking options to memory expansions, we'll help you create the solution to meet your specific needs.

Base Model	HandKey II
Card readers	<ul style="list-style-type: none"> <li>▪ <b>PROX:</b> Externally top mounted HID proximity reader, factory installed option only</li> <li>▪ <b>SC-100:</b> Mifare Classic (r) reader, factory installed option only</li> <li>▪ <b>iCLASS®:</b> HID Legacy iCLASS reader, factory installed option only</li> </ul>
Memory	<ul style="list-style-type: none"> <li>▪ <b>EM-801-F3:</b> Field upgradable memory expansion up to 9,728 users</li> <li>▪ <b>EM-803-F3:</b> Field upgradable memory expansion up to 32,512 users</li> </ul>
Communication	<ul style="list-style-type: none"> <li>▪ <b>EN-201:</b> Field upgradeable Ethernet communication module 10baseT</li> <li>▪ <b>MD-500:</b> Internal dial-up modem</li> </ul>
Battery option	<ul style="list-style-type: none"> <li>▪ <b>BB-250:</b> Optional battery backup</li> </ul>
Mounting	<ul style="list-style-type: none"> <li>▪ <b>TM-100:</b> Table top secure mount for flat surfaces</li> </ul>
Left hand option	<ul style="list-style-type: none"> <li>▪ NA</li> </ul>
Network accessories	<ul style="list-style-type: none"> <li>▪ <b>DC-102:</b> Data converter for 4 wire system, RS-232 to RS-422 with 120V, 60Hz power supply</li> <li>▪ <b>DC-102 with 220V,</b> 50Hz power supply</li> </ul>

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# Enclosure options

for the HandKey®  
and HandPunch series



FX enclosure



GX enclosure



TX enclosure

## Overview

Schlage biometrics provides various options to protect your HandReader from the elements. Two different, proven solutions are available to ensure your HandReaders keep performing regardless of your environment.

### **FX Enclosure (FX-ENCL)**

Biometric HandKey Enclosure  
Time & Attendance HandPunch Enclosure

Constructed from high impact UV resistant polycarbonate material, the FX Enclosure provides a degree of protection against dusty, dirty, or rainy environments. Designed for the HandKey II and the HandPunch F Series, this enclosure can be added to an existing installation. When used with an integrated heater option (INT-HTR), it provides a comfortable heated platen against a cold climate.

### **GX Enclosure (GX-ENCL)**

Time & Attendance HandPunch Enclosure

Designed for the HandPunch G Series, this enclosure provides the same high degree of protection for your HandReader as the FX Enclosure, when used with the INT-HTR-G.

### **TX Enclosure (TX-ENCL)**

Biometric HandKey Enclosure

The TX Enclosure provides a higher degree of protection against dusty, dirty, or rainy environments. When used with an integrated heater option (INT-HTR), it provides a comfortable heated platen against a cold climate.



## Specifications

Enclosure type	FX enclosure	GX enclosure	TX enclosure
Part number	FX-ENCL	GX-ENCL	TX-ENCL
Temperature range	-20F to 120F / -29C to 49C	-20F to 120F / -29C to 49C	-45F to 120F / -43C to 49C
Dimensions (H x W x D)	14.75 in x 12.00 in x 10.50 in 37.5 cm x 30.5 cm x 26.7 cm	14.75 in x 12.00 in x 10.50 in 37.5 cm x 30.5 cm x 26.7 cm	23.00 in x 14.00 in x 11.25 in 58.4 cm x 35.6 cm x 28.6 cm
Cross weight (including reader)	7.3 lbs / 3.3 kg	7.3lbs / 3.3 kg	45.0 lbs / 20.4 kg
HandReader models	HK-2-F3	GT-400	HK-2-F3
Heater	Factory installed option only, Model No. INT-HTR	Factory installed option only, Model No. INT-HTR-G	Factory installed option only, Model No. INT-HTR

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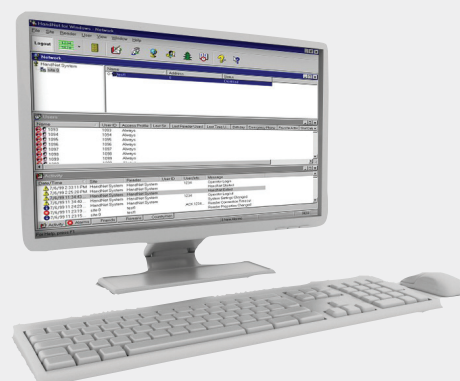


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# HandNet®

for Windows



## Overview

HandNet for Windows lets you control and monitor a network of HandKey readers. With just one comprehensive program, you can monitor activity and alarms on all readers, and control the access of each user.

## Features and benefits

- Automatic hand template management feature allows template distribution from an enrollment HandKey to other selected HandKeys thus eliminating the need for a user to be enrolled at every HandReader
- Independent door control capability without the need for an access control panel
- Monitor multiple remote sites from the convenience of your PC
- Remote enrollment feature enables a HandKey to be controlled from the software. For example, a guard behind a glass partition or a supervisor in a distant office can enroll new users without physically going to the HandKey
- Assign access to selected users by specifying a user's access start and stop days and times
- Manage archive activity to keep old information available for reports
- Manage alarms for additional security

Specifications	HandNet For Windows	HandNet Lite
Computer	Intel Pentium 1 GHz or higher, AMD Athlon 1GHz or higher	Intel Pentium 1 GHz or higher, AMD Athlon 1 GHz or higher
Operating system	<ul style="list-style-type: none"> <li>Windows XP SP3 32-bit</li> <li>Windows 7 Professional SP1 32-bit and 64-bit</li> <li>Windows 8 Professional 32-bit and 64-bit</li> <li>Windows 10</li> </ul>	<ul style="list-style-type: none"> <li>Windows XP SP3 32-bit</li> <li>Windows 7 Professional SP1 32-bit and 64-bit</li> <li>Windows Server 2003 SP3 32-bit</li> <li>Windows 8 Professional 32-bit and 64-bit</li> </ul>
Hard disk	2 GB minimum, 1 GB Free space	60 GB minimum, 10 GB free space
Monitor	Minimum resolution 1024 x 768	Minimum resolution 1024 x 768
Memory	2 GB (minimum 1 GB)	4 GB (minimum 2 GB)
Database	MS Access	MS SQL Server 2000 MSDE
Products supported	HK-2-F3	HK-2-F3
Template managements	Available	Available
Supported communications	RS232, RS485, Ethernet	RS232, RS485, Ethernet
Time zones	Available	Available
Reports	Available	Limited – use reports from an access control panel
Door control	Available	NA – use panel door control
Alarms	Available	NA – use panel alarms
Open door remotely	Available	NA – use panel door control
Network readers	Available	Available
Archive activity	Available	Available – database backup
Remote enrollment	Available	Available

## Options

- **HN-2-T1** - Manages up to 5 HandKeys
- **HN-2-T2** - Manages up to 25 HandKeys
- **HN-2-T3** - Manages an unlimited number of HandKeys
- **HandNet Lite** - Software program to manage up to 64 HandKeys

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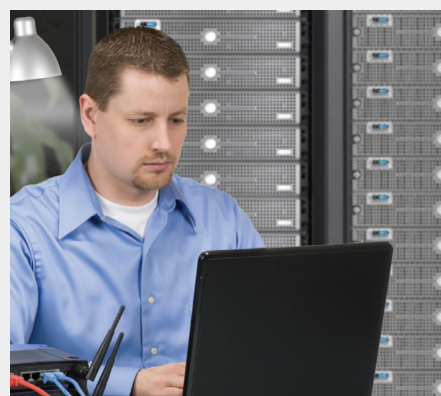
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# Biometrics for access control

## Training course outline



## Overview

Schlage biometrics offers training courses to provide you with the tools and services needed to optimize the performance and reliability of the HandKey® and related software solutions.

Keeping installers, technicians, and sales people current on the HandKey features, capabilities, troubleshooting techniques, and installation guidelines is key to profitability and maintaining customer satisfaction.

The goals of these courses are to provide a working knowledge of the HandKey hardware and software and be able to perform basic troubleshooting. The Schlage HandKey training classes are technically oriented and feature hands-on training through classroom exercises. Training is regularly scheduled at our factory location or can be delivered at your location.

### Schlage biometrics access control training courses

SBT-HK	1-day Schlage biometrics training - HandKey
SBT-HNWL	1-day Schlage biometrics HandNet for Windows and HandNet Lite software training

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## Training courses

### HandKey training:

- Introduction to biometrics
- Access control product line
- Options and accessories
- Installation
- Hands-on training
- Troubleshooting

### Access control HandKey software training:

- Comparison of HandNet® for Windows vs. HandNet Lite
- Overview of HandNet for Windows and HandNet Lite
- Installing HandNet for Windows and HandNet Lite
- Adding users
- Connecting to the HandKey
- Creating reports
- Archiving
- Database backup and restore
- Troubleshooting

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## System components



The systems components category features a variety of devices which are utilized as part of an access control system. Products include electric strikes, electromagnetic locks, power supplies, and system accessories.

### Electric strikes

#### Overview

Electric strikes provide remote release of a locked door, allowing a door to be opened without retracting the latch bolt. Von Duprin offers a selection of strikes for a variety of applications and door preps.

#### Features

The 4200 Series is a great choice for commercial applications where traffic control is the primary function. It is designed for use with cylindrical locks and can be used with all Schlage and Falcon locks as well as those of many other manufacturers'.

The 5100 Series is a versatile electric strike designed for medium-duty applications, specifically to control traffic flow through interior and exterior openings in retail and commercial facilities.

Two series of heavy-duty stainless steel strike families are designed for use with rim exit devices. The 6100 Series comes in five configurations including a rim nightlatch strike. 6300 Series is a single, surface mounted strike great for aftermarket replacement.

The 6200 Series includes 17 strike configurations featuring stainless steel construction for heavy duty applications. Use them with mortise or cylindrical locks. Both the 6100 and 6200 Series are available with a variety of options including AC operation, dual switch monitoring, entry buzzer, fail secure and fail safe.

The 6400 Series is an all-in-one modular strike for both cylindrical and mortise applications. Its field configurable deadbolt keeper and dead latch ramp to allow for alignment with a wide variety of doors and frames.

#### Benefits

Electric strikes can be used in standalone applications or as part of a sophisticated access control system and can be deployed on a variety of openings. In many cases electric strikes are an ideal solution for end users who are ready to migrate from mechanical to electronic access control.

# Electromagnetic locks

## Overview

The broad portfolio of Schlage electromagnetic locks offers a solution for most every application. Whether it's securing a hospital laboratory, monitoring a controlled area in an airport or providing traffic control for doors in an institutional building, Schlage electromagnetic door locks are designed to exceed the standards set by the Builders Hardware Manufacturers Association (BHMA). The portfolio encompasses a variety of hold force ratings including 500 lbs. for traffic control, 1000 lbs. for high security and 1500 lbs. for maximum security, as well as specialty locks for unique applications.

## Features

The M400 Series electromagnetic locks are available in two configurations to meet your specific security needs. M420, M450 and M490 provide basic security while models M420P, M450P and M490P provide intelligent sensing and reporting features needed to integrate with access control systems. The M400 Series is available with BHMA hold force ratings of 500 lbs, 1000 lbs and 1500 lbs.

Schlage also offers a variety of electromagnetic locks for specialty applications including the M490DE for delayed egress, 490G for gates, GF3000 shear locks for mortised/vertical doors, and the 320M for sliding door applications.

## Benefits

The M400 Series electromagnetic locks feature a bayonet mounting system that allows the installer to have their hands free during the mounting process. All M400 Series electromagnetic locks are symmetrical with field-selectable handing, allowing for optimum placement of the magnet no matter the application.

Schlage specialty electromagnetic locks are each designed with specific feature sets to optimize performance in the variety of unique, harsh and complex environments for which they are suited.

# Power supplies

## Overview

PS900 Series power supplies and accessories offer enhanced flexibility and functionality specific to the changing needs of the access control market. The PS900 Series can be used in a variety of applications to convert high voltage AC power into the low voltage DC outputs required by most access control devices. The PS900 Series protects devices downstream by providing Class 2<sup>1</sup>, filtered and regulated power. The full line is UL 294 certified.

## Features

The PS900 Series features three Schlage branded models; PS902 - 2 amp, PS904 - 4 amp, and PS906 - 6 amp. The PS900 Series also features the Von Duprin PS914 - 4 amp with high in-rush which is designed specifically for use with electrified exit devices. The full series of power supplies can be outfitted with a variety of distribution options including basic fuse protection, simple relay, and advanced logic providing complex sequencing and timing functions.

## Benefits

Common to the line of PS900 Series power supplies is a constant output rating at both 12v and 24v settings, universal 120 VAC to 240 VAC input, and polarized option board connectors. An optional fire alarm interface board mounting allows outputs to be configured as switched (power cut) or unswitched (power continues) when alarm signal is provided.

Installation is simplified by utilizing a flat mounting design and polarized locking connectors for option boards. This new design eliminates the need for racks and side connectors. The flat mounting of the option boards also provides for easier access to the terminal blocks for connection of electrified devices (such as electrified strikes, electromagnetic locks, card readers, etc).

<sup>1</sup> PS906 can provide Class 2 rated outputs when used with 900-8P distribution board.

# System accessories

## Overview

System accessories include a variety of devices that enable specific functionality whether in standalone applications or as part of networked access control systems. The category is comprised of pushbuttons, key switches, request-to-exit bars, monitoring stations and consoles, exit sensors, electric horns and more.

## Features

The specially designed 620/631 Series heavy-duty pushbuttons and 700 Series general purpose pushbuttons, as well as the 650 Series heavy-duty keyswitches, offer momentary or maintained SPDT or DPDT contact configurations.

The 700 Series pushbuttons are used to control the ingress and/or egress of a door.

The 620/631 Series are heavy-duty and have multiple button configurations and finish options.

The 650 Series keyswitches utilize an innovative magnetic spring design which allows installers to quickly configure both clockwise and counterclockwise key turn direction, as well as momentary or maintained action.

The 740 Series emergency break glass releases are designed for use as emergency releases of non-designated egress doors such as in individual and partitioned laboratories, secluded testing areas, or other isolated work rooms that are purposely provided with exit doors.

The 672/692 Series request-to-exit bars are non-latching releasing devices which allow egress at doors with electric locking devices, such as electromagnetic locks. The SCAN II is a passive infrared (PIR) sensor specifically designed for request-to-exit applications.

The 8200 Series consoles provide door control and monitoring for up to eight zones. The 8204 is used for one to four zones and the 8208 for one to eight zones.

The 800/801 Series monitoring stations can provide monitoring for a single zone with up to 2 LED indicators. The 801 unit includes an audible and visual indication of lock status and delay activation.

The 660 Series mini station control is designed for concealed desk application, and it is used to release an electric or electronic locking mechanism from a remote location.

Electric horns are designed for use as an immediate local audible warning device incorporated in a security system. Horns are field selectable 12 or 24 VDC with eight combinations of volume, tone and code.

Magnetic door position switches can be used to monitor a wide range of conditions for doors, roof hatches, gates or the proximity of any two objects.

Electric power transfers (EPT) are also used when installing electrified exit devices or electrified locks. They provide a means of transferring electrical power from a door frame to the edge of a swinging door.

Electrified hinges and power transfer pivots integrate seamlessly with your access control system and your door mounted electrified hardware.

Armored door cords are used when installing electric exit devices or electric locks and provide a simple and economical solution for transferring power from frame to door.

The 4425 cabinet lock by Schlage provides a versatile solution to add access control to a cabinet.

The PB405 PowerBolt is a mortise, right angle deadbolt with which is available with fail-safe or fail-secure options.

## Benefits

System accessories allow you to customize each opening to meet specific security and safety needs. Schlage offers a variety of the most popular accessories designed for medium to heavy-duty applications. By choosing Schlage components, you can be assured that the system will meet the requirements of the job, whether new construction or aftermarket.

## Power supplies - Schlage and Von Duprin

	PS902	PS904	PS906	PS914
<b>Features</b>				
Input voltage	120V/240V AC, 50/60 Hz, universal input			
Output voltage	2 amp @ 12V or 24V DC, field selectable	4 amp @ 12V or 24V DC, field selectable	6 amp @ 12V or 24V DC, field selectable	4 amp, High Inrush @ 12V or 24V, field selectable
Distribution/option board connectors	1	2	3	2
Fire alarm plug-in connector	Yes	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes <sup>1</sup>
Battery backup plug-in connector	Yes	Yes	Yes	Yes
<b>Enclosure</b>				
Dimensions (H x W x D)	14 in x 12 in x 4 in			
Key lock option	Y	Y	Y	Y
<b>Battery backup</b>				
900-BB: battery backup board only	Y	Y	Y <sup>3</sup>	Y
900-BBK: battery backup kit	Y	Y	Y <sup>3</sup>	Y
<b>Option boards</b>				
900-FA: fire alarm	Y	Y (Must be installed on an option board)	Y (Must be installed on an option board)	Y (Must be installed on an option board)
900-2RS: 2 relay option board	Y	Y	Y	Y
900-4R: 4 relay option board	Y	Y	Y	Y
900-4RL: 4 relay logic board	Y	Y	Y	Y
900-8F: fuse protected 8 zone board	Y	Y	Y	Y
900-8P: PTC 8 zone distribution board	Y	Y	Y (Class 2 rated on PS906 only)	Y
<b>Certifications</b>				
UL 294	Y	Y	Y	Y
ULC-S318	Y	Y	Y	Y
Class 2	Y	Y	Y <sup>2</sup>	Y
RoHS	Y	Y	Y	Y
FCC Part 15	Y	Y	Y	Y

<sup>1</sup> Requires available option board for connection.

<sup>2</sup> Class 2 rated outputs can be provided using 900-8P distribution board in conjunction with the PS906.

<sup>3</sup> Addition of battery in compartment limits option board application to two.



Electromagnetic locks

M400 electromagnetic locks					
	M420, M420P	M450, M450P	M490, M490P	M490DE, M490DEP	M490G
Features					
Hold force	500 lbs.	1000 lbs	1500 lbs	1300 lbs	1500 lbs
Input voltage	12V/24V DC	12V/24V DC	12V/24V DC	12V/24V DC	12V/24V DC
Current draw	0.75A @ 12V DC 0.38A @ 24V DC	0.75A @ 12V DC 0.38A @ 24V DC	0.65A @ 12V DC 0.35A @ 24V DC	.75A @ 12V DC .45A @ 24V DC	0.65A @ 12V DC 0.35A @ 24V DC
Dimensions					
Lock dimensions (H x W x L)	2.5 in x 9 in x 1.375 in	3 in x 10.25 in x 1.75 in	3 in x 12.5 in x 1.75 in	3 in x 12.5 in x 3.0625 in	3 in x 11 in x 1.75 in
Weight	6 lbs	10 lbs	14 lbs	16 lbs	14 lbs
Certifications					
ANSI/BHMA 156.23	Y	Y	Y	-	Y - Outdoor Rated
ANSI/BHMA 156.24	-	-	-	Y	-
UL 10C	3-hour	3-hour	3-hour	3-hour	-
UL 1034	Y	Y	Y	-	-
UL 294	Y	Y	Y	Y	-
cUL	Y	Y	Y	Y	-
CSFM	Y	Y	Y	Y	-

M490DEP also meets NFPA 101 Life Safety Code and can be ordered as BOCA compliant.

## Electromagnetic locks

Specialty mag locks			
	GF3000SM (Surface mount)	GF3000 (Mortise mount)	320M
<b>Features</b>			
Hold force	3000 lbs	3000 lbs	500/650 lbs
Input voltage	12V/24V DC	12V/24V DC	12V/24V DC
Current draw	0.90A @ 12V DC 0.45A @ 24V DC	0.90A @ 12V DC 0.45A @ 24V DC	0.23A @ 12V DC 0.45A @ 24V DC
<b>Dimensions</b>			
Lock dimensions (H x W x L)	1.875 in X 9.8125 in X 2 in	1.5 in X 9.5 in X 1.5 in	1.375 in x 7 in x 1.875 in
Weight	9 lbs	7 lbs	6 lbs
<b>Certifications</b>			
ANSI/BHMA 156.23	Y	Y	N/A
ANSI/BHMA 156.24	-	-	-
UL 10C	3-hour	3-hour	3-hour
UL 1034	Y	Y	-
UL 294	-	-	-
cUL	Y	Y	Y
CSFM	Y	Y	Y

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**VON DUPRIN®**

## 4200 Series

Electric strike for cylindrical locks and deadlatches



### Overview

4200 Series is designed to offer versatility in two commercial-duty electric door strike models. They are a great choice for applications where interior traffic control is the primary function. And with their solid construction and heavy-duty stainless steel faceplate, they meet ANSI/BHMA Grade 1 for endurance and dynamic strength.

Designed for compatibility with a wide range of cylindrical devices, they are able to address a broad range of needs. You'll find 4200 Series strikes work with all Schlage and Falcon cylindrical locks as well as those of many other manufacturers.

These reliable strikes are easy to order, configure and install. Field selectable options include changing fail safe and fail secure modes without disassembly. They also feature a 12/24 dual-voltage solenoid for field wiring of either input voltage. Factory orderable options include an entry buzzer and rectifier kits to provide even greater flexibility and available parts include square or round cornered ANSI faceplates.

### Features and benefits

- Designed for cylindrical applications
- Capable of four in-field configurations
- Shallow 1-3/8" backbox depth
- Field selectable 12/24 VDC voltage
- Non-handed, internal solenoid design
- Low current draw for PoE installations
- Field selectable power failure mode (fail-safe/fail-secure) without disassembly
- Heavy-duty stainless steel faceplate
- Latchbolt monitoring available (4212 model)
- Options include entry buzzer and rectifier kits
- Suitable for interior and exterior doors
- Meets ANSI/BHMA A156.31, Grade 1 for endurance and dynamic strength
- Meets ANSI/BHMA A156.31, Grade 2, 1000 lbs static strength
- Dynamic strength 70 ft-lbs
- Endurance 500,000 cycles

## Lockset compatibility

The 4200 series is compatible with all Schlage and Falcon cylindrical locks as well as cylindrical and deadlatch locks of many other manufacturers.

- The 4211 is compatible with locksets with  $\frac{5}{8}$ " (15 mm) throw latchbolts, or up to  $\frac{3}{4}$ " (19mm) throw latchbolts with a  $\frac{1}{8}$ " door gap.
- The 4212 is compatible with locksets with  $\frac{1}{2}$ " (12.7mm) throw latchbolts, or up to  $\frac{5}{8}$ " (15 mm) throw latchbolts with a  $\frac{1}{8}$ " door gap.

## 4200 Series power requirements

Model	Voltage	Current	Duty	Amps	Ohms
4211 or 4212	12V	DC	Continuous	0.20	
4211 or 4212	24V	DC	Continuous	0.10	

**4212 Latchbolt monitor switch rating:** 30VDC at 0.20 A

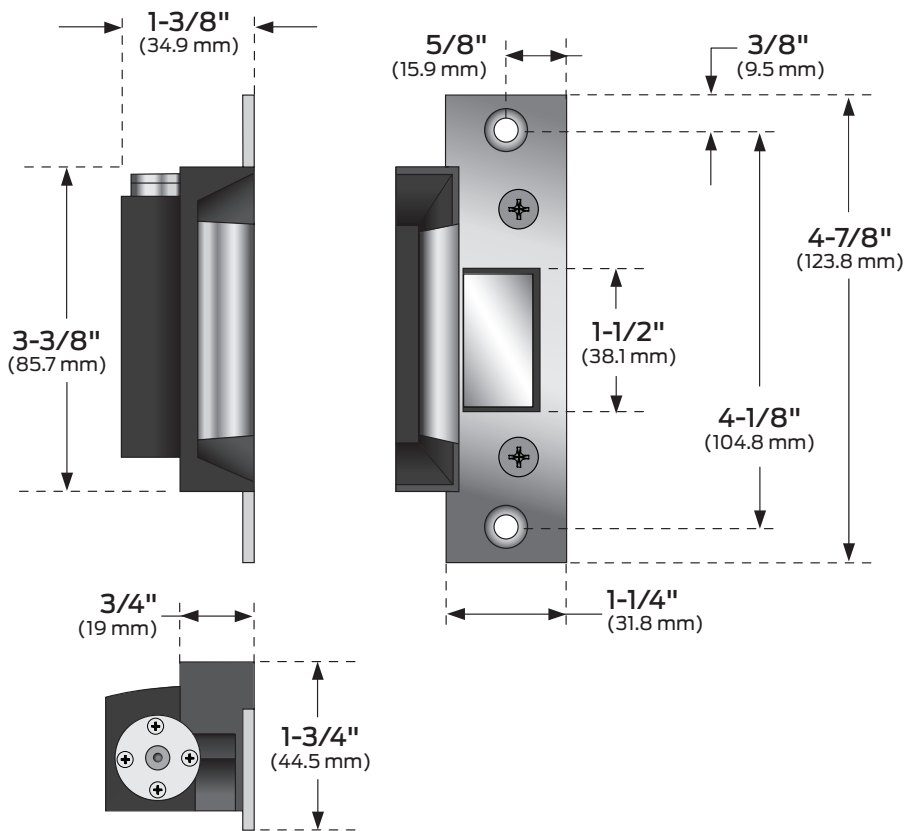
The 4200 series requires a DC regulated power supply, and the Schlage P5900 series power supplies are recommended.

Continuous duty = Energized 1 minute or more

## Model specifications

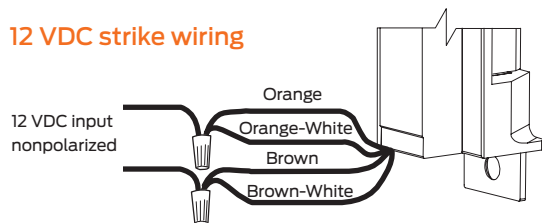
Model number		4211	4212
Retrofits model		HES 5200, RCI 6 Series	HES 5000, RCI 6 Series
Latchbolt throw		$\frac{3}{4}$ "	$\frac{5}{8}$ "
Latchbolt monitor switch		---	■
Face plate length		4 $\frac{7}{8}$ "	4 $\frac{7}{8}$ "
Backbox depth		1 $\frac{3}{8}$ "	1 $\frac{3}{8}$ "
Finish (faceplate)		BHMA 630/US32D	
Lockset	Cylindrical	■	■
	Deadlatch	■	■
	Mortise	---	---
Number of doors	Single	■	■
	Pair	---	---
Frame type	Hollow metal	■	■
	Aluminum	■	■
	Wood	---	---
Options	EB (entry buzzer - fail-secure only)	■	■
	S012 & S024 rectifier kit for AC to DC operation	■	■

## Dimensions

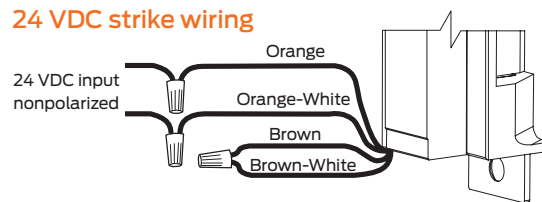


## Wiring

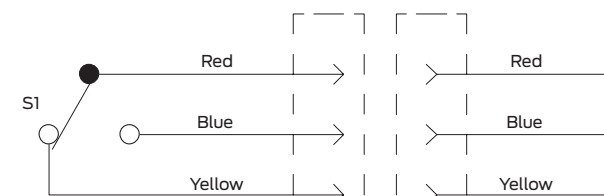
### 12 VDC strike wiring



### 24 VDC strike wiring



### Latchbolt monitoring switch (4212 only)



Switch shown with latch status tripper depressed

## Ordering information

4200-S024-EB

Model	Rectifier kit*	Buzzer*
1	2	3

\* Optional

Selections correspond with the numbers above

1	Model
4211	See model specification chart to make the proper selection
4212	See model specification chart to make the proper selection
2	Rectifier kit (optional)
S012	Converts 12 VAC voltage to 12 VDC to operate the solenoid
S024	Converts 24 VAC voltage to 24 VDC to operate the solenoid
3	Buzzer (optional)
EB	Entry Buzzer, with fail-secure (FSE) configured

### Standard features

- Power failure mode: Field configurable fail-secure/fail-safe
- Voltage: Field configurable 12 VDC/24 VDC dual voltage solenoid
- Finish: BHMA 630/US32D satin stainless steel
- Includes mounting tabs, fail secure conversion hex key, wood and machine screws, plus a suppressing diode.

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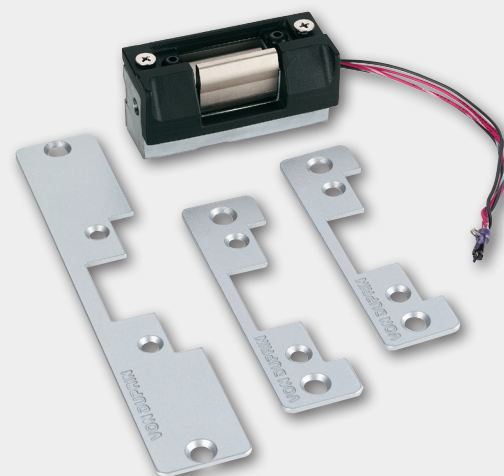
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**VON DUPRIN®**

## 5100 Series

Electric strike for cylindrical locksets and deadlatches



### Overview

The Von Duprin 5100 Series electric door strike has been designed to offer flexibility and convenience for locksmiths and security professionals alike. This easy-to-install electric strike was created for medium-duty applications, specifically to control traffic flow through interior and exterior openings in retail and commercial environments.

The 5100 electric strike is compatible with a wide range of cylindrical devices and is extremely versatile for field conversions. The combination of three faceplate options plus field selectable voltage and power fail modes allows it to be changed on the job site to create as many as 12 different configurations. An adjustable keeper also improves fit for applications with weather stripping or tight door preps. In short, the 5100 provides added convenience by ensuring the right parts are in the box to get the job done.

Like other Von Duprin strikes, the 5100 was developed to meet high standards and engineered for reliability and quality. Its durable construction and tamper-resistant design stands up to abuse and is tested to over one million cycles.

### Features and benefits

- Designed for cylindrical applications
- Capable of 12 in-field configurations
- Three faceplates standard in every box
- Field selectable 12/24 voltage
- Non-handed, internal solenoid design
- Field selectable power failure mode (fail-safe/fail-secure)
- Adjustable keeper improves fit on tight door preps
- Options include 12 and 24 VAC to VDC rectifier kits
- Available in three finishes to suite with existing hardware
- Suitable for interior and exterior doors
- UL 1034 listed for burglary-resistant electric door strikes
- Meets ANSI/BHMA A156.31, Grade 1 for endurance and dynamic strength
- Meets ANSI/BHMA A156.31, Grade 2, 1300 lbs static strength
- Dynamic strength 70 ft-lbs
- Endurance 1,000,000 cycles

## 5100 Series power requirements

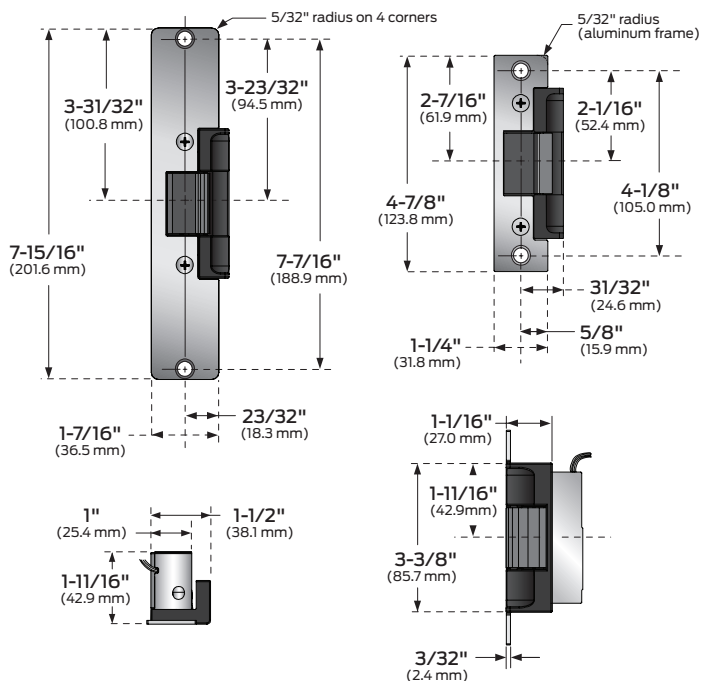
Model	Voltage	Current	Duty	Amps	Ohms
5100	12V	DC	Continuous	0.38	32
5100	24V	DC	Continuous	0.19	128

Continuous duty = Energized 1 minute or more

## Model specifications

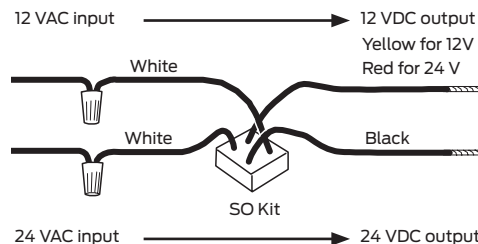
Model number	5100
Retrofits model	HES 5000C, 5200C, RCI 7 Series
Latchbolt throw	1/2" to 5/8" (1/2" keeper depth)
Face plate length	4 7/8" or 7 15/16"
Backbox depth	1 11/16"
Lockset	Cylindrical and deadlatch
Number of doors	Single
Frame type	Hollow metal, aluminum and wood
Listings	UL 1034 burglary listing
Application notes	Versatile electric strike for aftermarket, covering multiple applications in one SKU.

**Lockset compatibility:** Keeper depth of 1/2" is sufficient to accommodate all cylindrical locks up to 5/8" throw and most aluminum narrow stile deadlatches.

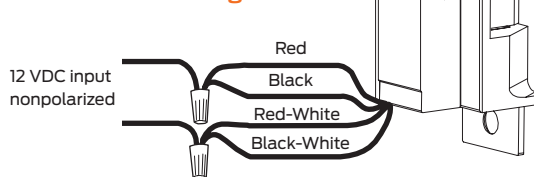


Solenoid power requirements; 12VDC, 0.38 A, 24 VDC, 0.19 A

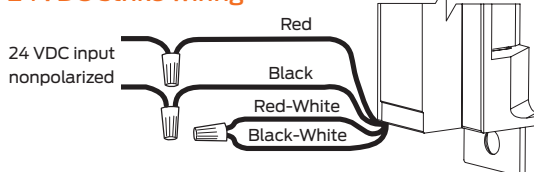
For DC operation, Von Duprin PS902 series power supply is recommended.  
For AC operation, Von Duprin SO24 kit is recommended.



## 12 VDC strike wiring



## 24VDC strike wiring



## Ordering information

5100-US19-S024

Model	Finish	Rectifier kit*
1	2	3

Selections correspond with the numbers above

1	Model
5100	Electric strike for cylindrical locksets
2	Finish
US SP28/BHMA 689	Aluminum
US 19/BHMA 622	Flat Black
US SP313/BHMA 695	Dark brown
3	Rectifier kit (optional)
S012	Converts 12 VAC voltage to 12 VDC to operate the solenoid
S024	Converts 24 VAC voltage to 24 VDC to operate the solenoid

## Standard features

- Power failure mode: Field configurable fail-secure/fail-safe
- Voltage: Field configurable 12VDC/24 VDC dual voltage solenoid
- Mounting tabs and shims
- Self-adhesive neoprene filler for retrofits

## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

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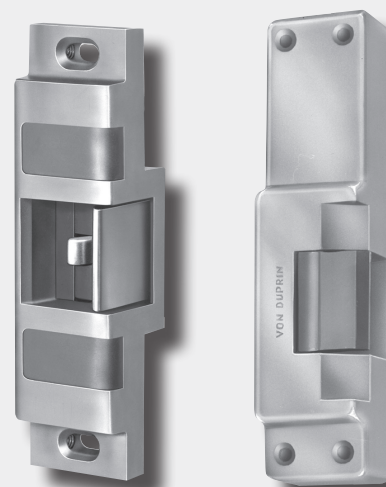


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**VON DUPRIN®**

## 6100 Series

Strikes for rim exit devices



### Overview

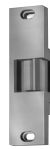
Von Duprin electric strikes are known for their reliability, durability and security. The 6100 Series strikes are designed to withstand abuse. Their heavy-duty stainless steel construction is UL1034 listed.

6100 Series electric door strikes are designed for use with a variety of rim exit devices including rim nightlatch. Electrified strikes allow remote release of a locked door by activating a movable lip (keeper) using an entry/exit button or credential reader and can be a cost effective means for managing access. 6100 Series strikes come standard as 24 VDC in fail secure mode. 12 VDC and AC operation can be selected, as can fail safe mode and other options that enable you to configure these strikes to fit your exact needs.

Use 6100 Series electric strikes for retrofit applications or new construction. To assure the proper selection of an electric strike on new applications, lockset compatibility charts are shown on the next page. When using a lockset not listed or if retrofitting a strike to an existing application, please contact Von Duprin technical support for application assistance.

### Features and benefits

- Five configurations available for rim exit and nightlatch devices
- Heavy-duty stainless steel construction
- Strike box allows horizontal adjustment to compensate for misalignment of the door or frame
- 24 VDC standard with 12 VDC and AC operation optional
- Two-piece plug connectors are furnished for ease of installation and removal during strike servicing
- Options include rectifier kit for VAC to VDC conversion, dual monitor switches, entry buzzer and Allegion Connect wire extension
- Six popular finishes available to suite with existing hardware
- Suitable for interior or exterior doors
- UL 10C 3-hour fire-rated electric strike (models 6111, 6112 and 6113 – fail secure only)
- UL 1034 listed for burglary-resistant electric door strikes



## Model specifications

Model number		6111	6112	6113	6114	6121
Retrofits model		VD 3031	FA 310-4	VD 3011 VD 3021	FA 310-5	FA 310-4-100
Latchbolt throw		3/4"	3/4"	3/4"	3/4"	3/4"
Face plate length		6"	9"	6"	7 1/2"	9 1/8"
Backbox depth		1 5/8"	1 11/16"	1 15/16"	N/A	N/A
Lockset		Rim exit device	Rim exit device	Rim exit device	Rim nightlatch	Rim exit device
Number of doors	Single	■	■	■	■	---
	Double door with mullion	■	---	---	---	---
	Double door without mullion	---	---	---	---	■
Door/frame type	Hollow metal	■	■	■	■	■
	Aluminum	■	■	■	■	■
	Wood	■	■	■	---	■
Options	Blade stop shim	Yes	No	Yes	No	No
	DS or DS-LC (dual monitor switches)	Yes	Yes	Yes	Yes	Yes
	EB (entry buzzer - fail-secure only)	Yes	Yes	Yes	Yes	Yes
Certifications/ Listings	UL 1034	■	■	■	■	■
	UL 10C Single Door	3 hour	3 hour	3 hour	---	---
	UL 10C Pair Door*	90 minutes	90 minutes	90 minutes	---	---
Application notes		1	2	3	4	5

\*With manufacturer's mullion.

Note: 16 VDC and 28 VDC solenoid are sold as replacement parts for existing strikes. Please contact customer care for details.

### Application notes:

- 1/2" projection blade stop shim 010055-XX available for use on cased opening or blade stop frames. Specify when using 55 rim devices. May also be used with vertical rod exit devices noted on previous page x Pullman latch LBR (non-fire rated).
- When used to replace Folger Adam 310-4, minor frame prep modification required.
- 1/2" projection blade stop shim 010055-XX available for use on cased opening or blade stop frames (non-fire rated).
- Surface applied strike designed to replace Folger Adam 310-5 with different mounting hole locations from Folger Adam.
- Designed to mount on inactive leaf.

### Rim exit device compatibility 6111, 6112, 6113 and 6121 strikes

Manufacturer	Device
Von Duprin	22, 33A, 35A, 55 <sup>1</sup> , 88, 98, 99 8827 LBR <sup>4</sup> x Pullman latch Non-Fire rated 9827 LBR <sup>4</sup> x Pullman latch Non-Fire rated 9927 LBR <sup>4</sup> x Pullman latch Non-Fire rated
Falcon Monarch <sup>2</sup>	XX-R, 18-R, 19-R, 24-R, 25-R
Falcon Doromatic	1790
Precision <sup>2</sup>	2100
Sargent	2800, 6500, 6800, 8500, 8800, 9500, 9800 <sup>3</sup> , 9898
Yale	1500, 700

1. Strike must be factory modified, specify when using with a 55 Rim device.
2. Deadlocking feature will not properly function, consult factory.
3. Panic only, not fire-rated.
4. 6111 is recommended for LBR applications.

Note: When using a lockset not listed or when retrofitting an existing application, please contact Von Duprin technical support for application assistance.

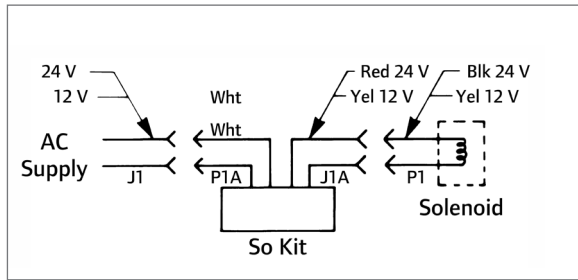
## 6100 Series power requirements

Models	Voltage	Current	Duty	Amps	Ohms
All	12V	DC	Continuous	0.60	21
All	24V	DC	Continuous	0.33	83

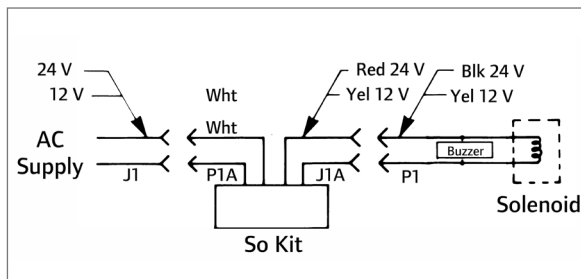
Continuous duty = Energized 1 minute or more

## Wiring

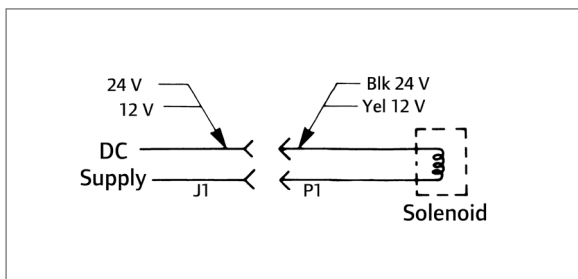
### AC



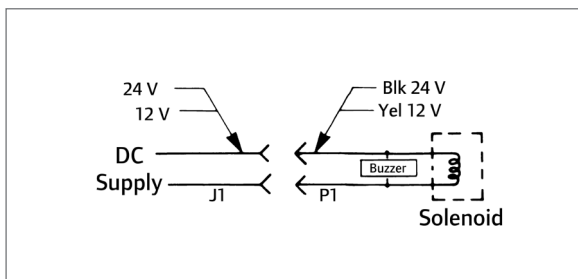
### AC with buzzer



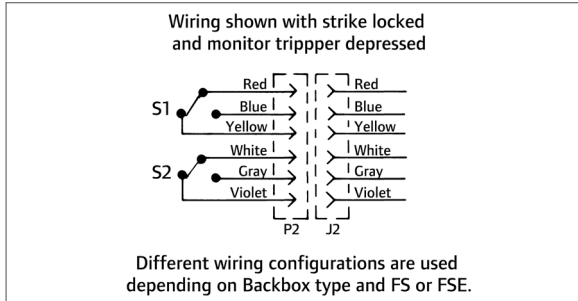
### DC



### DC with Buzzer

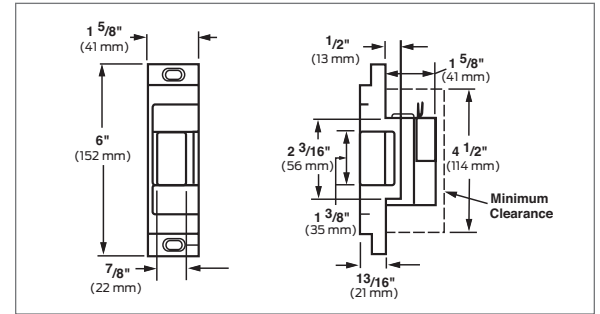


### Optional DS (FSE Shown)

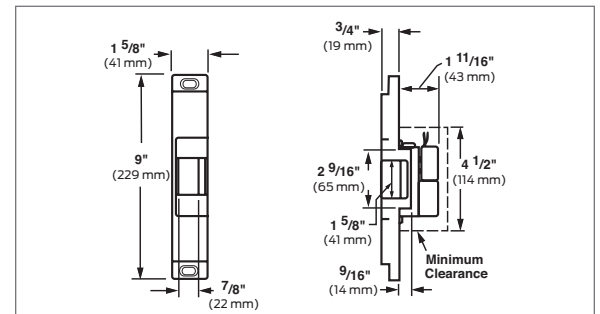


## Dimensions

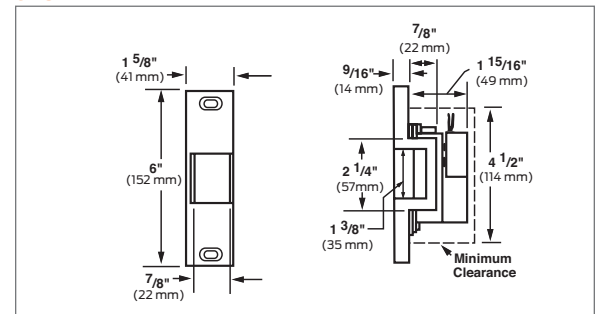
### 6111



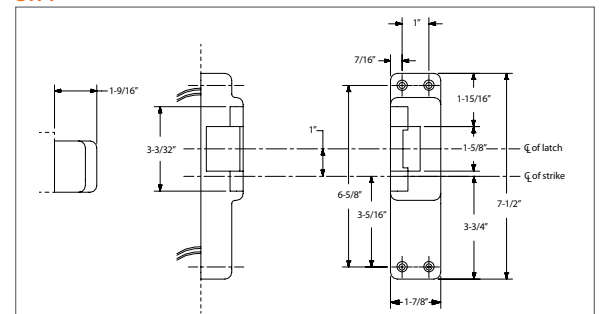
### 6112



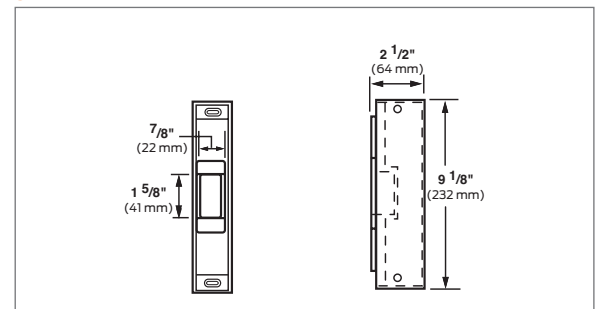
### 6113



### 6114



### 6121



## Ordering information

6112-FSE-DS-24-S024-US3-EB-CON

Model	Power failure mode	Dual switch*	Voltage	Rectifier kit*	Finish	Buzzer*	Allegion Connect*
1	2	3	4	5	6	7	8

\* Optional

Selections correspond with the numbers above

<b>1</b>	<b>Model</b>
Reference specification chart to make the proper model selection	
<b>2</b>	<b>Power failure mode</b>
FSE	Fail-secure. Requires power to be applied to unlock the strike lip. On loss of power, the strike lip is locked. <b>Fire-rated.</b>
FS	Fail-safe. Requires power to be applied to lock the strike lip. On loss of power, the strike lip is unlocked. <b>Non-fire-rated.</b>
<b>3</b>	<b>Dual switch (optional)</b>
DS	Monitors latch bolt and lock status. DS switches rated for 24 VDC at .050 - 2.0 amps.
DS-LC	Low current option for computer monitoring. Monitors latch bolt & lock status. DS-LS switches rated for 24 VDC at .050 amp or less.
<b>4</b>	<b>Voltage (VDC)</b>
24	Low voltage DC power
12	Low voltage DC power
If AC power is required, specify rectifier kit.	
<b>5</b>	<b>Rectifier kit (optional)</b>

S012	Converts 12 VAC voltage to 12 VDC to operate the solenoid
S024	Converts 24 VAC voltage to 24 VDC to operate the solenoid
<b>6</b>	<b>Finish</b>
US3/BHMA 605	Plated polished brass on stainless steel
US4/BHMA 606	Plated satin brass on stainless steel
US10/BHMA 612	Plated satin bronze on stainless steel
US10B/BHMA 613	Plated dark bronze, oil rubbed on stainless steel
US32/BHMA 629	Stainless steel, polished
US32D/BHMA 630	Stainless steel, satin
<b>7</b>	<b>Buzzer (optional)</b>
EB	Entry Buzzer
Only available if Fail-Secure (FSE) is specified.	
<b>8</b>	<b>Allegion Connect</b>
CON	Allegion Connect Connector
6 in. wire extension harness available	

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### About Allegion

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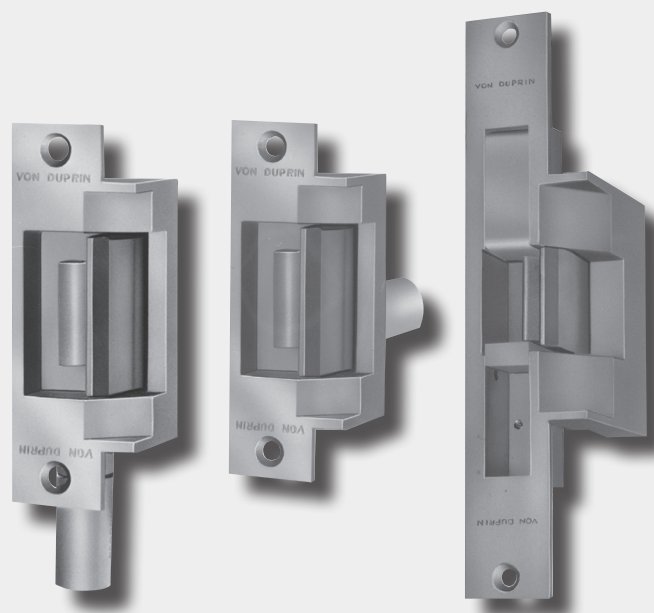


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**VON DUPRIN®**

## 6200 Series

Strikes for mortise or cylindrical devices



### Overview

Von Duprin electric strikes are known for their reliability, durability and security. The 6200 Series strikes are designed to withstand abuse. Their heavy-duty stainless steel construction is fully UL 1034 and UL 10C listed.

6200 Series electric door strikes are designed for use with a variety of mortise or cylindrical locksets. Electrified strikes allow remote release of a locked door by activating a movable lip (keeper) using an entry/exit button or credential reader and can be a cost effective means for managing access. 6200 Series strikes come standard as 24 VDC in fail secure mode. 12 VDC and AC operation can be selected, as can fail safe mode and other options that enable you to configure these strikes to fit your exact needs.

Use 6200 Series electric strikes for retrofit applications or new construction. To assure the proper selection of an electric strike on new applications, lockset compatibility charts are shown on the next page. When using a lockset not listed or when retrofitting a strike to an existing application, please contact Von Duprin Technical Support for application assistance.

### Features and benefits

- 17 configurations available for cylindrical and mortise applications
- Heavy-duty stainless steel construction
- 24 VDC standard with 12, 16 and 28 VDC operation optional
- Two-piece plug connectors are furnished for ease of installation and removal during strike servicing
- Options include rectifier kit for VAC to VDC conversion, dual monitor switches, entry buzzer and Allegion Connect wire extension
- Six popular finishes available to suite with existing hardware
- Suitable for interior and exterior doors
- UL 10C 3-hour fire-rated (fail secure only)
- UL 1034 listed for burglary-resistant electric door strikes

\* Certification detail is listed within Model Specifications



### 6200 Series power requirements

Models	Voltage	Current	Duty	Amps	Ohms
All	12V	DC	Continuous	0.60	21
All	16V	DC	Continuous	0.40	38
All	24V	DC	Continuous	0.33	83
All	28V	DC	Continuous	0.25	111

Continuous duty = Energized 1 minute or more

### Mortise lockset compatibility<sup>1, 3</sup>

6211, 6211AL, 6211WF, 6212, 6213, 6214, 6215, 6221, 6222, 6223, 6224, 6224AL, 6225 and 6226 strikes

Manufacturer	Model number
Von Duprin	7500
Adams Rite	4510, 4710
Baldwin	6000
Best	24H, 30H
Corbin	9000
Falcon	M2300, M2500, M2600, M3300, M3500, M3600
Precision	Mortise
Russwin	Mortise
Sargent	7700, 8100, 9000
Schlage	L9000, K30, K40, K50, K60
Yale	7030, 7130, 8600, 8700

### Mortise lockset compatibility<sup>1, 3</sup>

6210

Manufacturer	Model number
Von Duprin	7500
Best	30H (not 45H/47H)
Corbin/Russwin	ML2200, 5000, 9000, CR2200 (not 2000)
Falcon	M100, M200, M300, M400, M500, M600
Sargent	7700, 8100 (not 7800/8200)
Schlage	L9000
Yale	8700 (not 8800)

### Cylindrical lockset compatibility<sup>1, 3</sup>

6211, 6211AL, 6211WF, 6212, 6213, 6214, 6215, 6221, 6222, 6223, 6224, 6224AL, 6225 and 6226 strikes

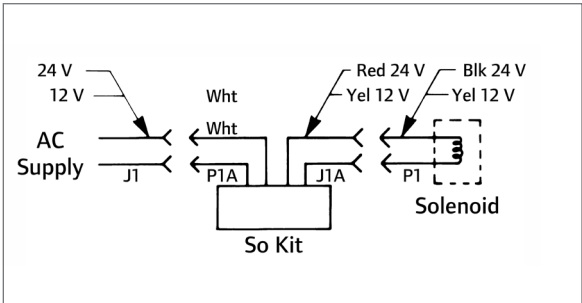
Manufacturer	Cylindrical latchbolt projection
Baldwin	$\frac{1}{2}$ " – $\frac{3}{4}$ " (13 mm – 19 mm)
Best	$\frac{3}{8}$ " – $\frac{3}{4}$ " (10 mm – 19 mm) <sup>2</sup>
Corbin	$\frac{1}{2}$ " – $\frac{3}{4}$ " (13 mm – 19 mm)
Falcon	$\frac{1}{2}$ " – $\frac{3}{4}$ " (13 mm – 19 mm)
Russwin	$\frac{1}{2}$ " – $\frac{3}{4}$ " (13 mm – 19 mm)
Sargent	$\frac{1}{2}$ " – $\frac{3}{4}$ " (13 mm – 19 mm)
Schlage	$\frac{3}{8}$ " – $\frac{3}{4}$ " (10 mm – 19 mm) <sup>2</sup>
Yale	$\frac{1}{2}$ " – $\frac{3}{4}$ " (13 mm – 19 mm)

Note: When using device not listed or when retrofitting a strike to an existing application, please contact Von Duprin Technical Support for application assistance.

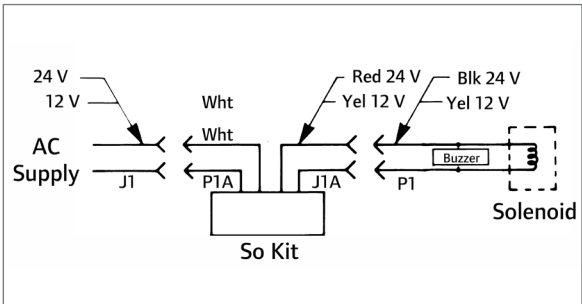
1. Von Duprin cannot guarantee compatibility, as other manufacturer's designs may change without notice.
2. Signalling may not function when using  $\frac{3}{8}$ " (10 mm) throw bolt. Deadlocking cannot be guaranteed with all locks.
3. When using a lockset not listed or when retrofitting a strike to an existing application, please contact Von Duprin Technical Support for assistance.

## Wiring

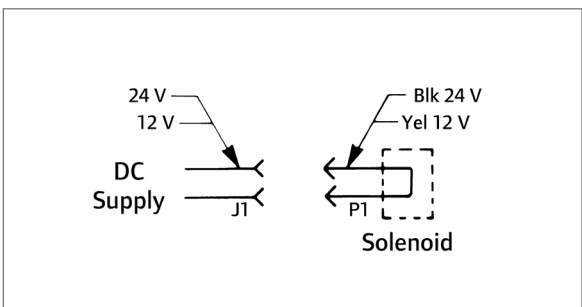
### AC



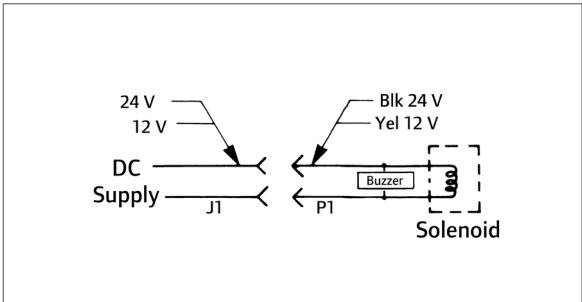
### AC with Buzzer



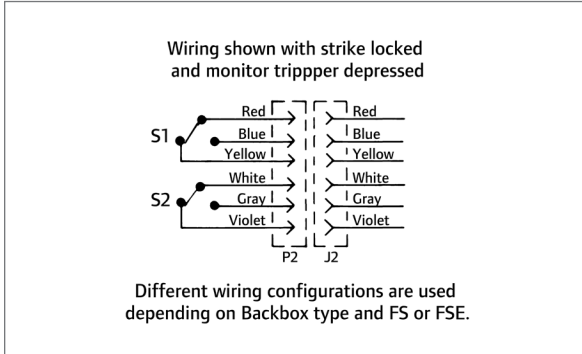
### DC



### DC with Buzzer



### Optional DS (FSE Shown)





## Model specifications

Model number		6210	6211	6211AL	6211WF	6212
Retrofits model		N/A	VD 3140 FA 712	FA 722	FA 732	VD 3146
Latchbolt throw		$\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{3}{4}$ "
Face plate length		4 $\frac{7}{8}$ "	4 $\frac{7}{8}$ "	4 $\frac{7}{8}$ "	4 $\frac{7}{8}$ "	6 $\frac{3}{8}$ "
Backbox depth		1 $\frac{3}{4}$ "	1 $\frac{11}{16}$ "	1 $\frac{11}{16}$ "	4 $\frac{1}{2}$ "	1 $\frac{21}{32}$ "
Lockset	Mortise without deadbolt	■	■	■	■	■
	Mortise with deadbolt 1" throw	---	---	---	---	---
	Cylindrical	---	■	■	■	■
Number of doors	Single	■	■	■	■	■
	Pair	---	---	---	---	---
Door and frame type	Hollow metal	■	■	---	---	■
	Aluminum	■	■	■	---	■
	Wood	---	---	---	■	---
Options	DS or DS-LC (dual monitor switches)	■	■	■	■	■
	EB (entry buzzer - fail-secure only)	■	■	■	■	■
	28 VDC AC rectifier kit	■	■	■	■	■
	16 VDC solenoid	■	■	■	■	■
Certifications/ Listings	UL 1034	■	■	■	■	■
	UL 10C	3 hour	3 hour	3 hour	3 hour	3 hour
	ANSI/BHMA 156.31, Grade 1	---	■	■	■	---
Application Notes		1	1	---	2	3

### Application notes:

- For use in ANSI prep at standard height. Strike pocket inserts are provided to accommodate different manufacturers deadlocking trigger locations.
- Designed to replace Folger Adams 732. Wood frame horizontal solenoid location differs from Folger Adams. Requires additional frame prep when retrofitting.
- Fits modified ANSI 115.2 cutout. Designed to replace Von Duprin 3146.



## Model specifications

Model number		6212WF	6213	6214	6215	6216	6221
Retrofits model		N/A	VD 3041, 3042, 3061, 3062	FA 310-2 3/4	FA 310-2	FA 310-3-1	VD 3071 VD 3072
Latchbolt throw		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Face plate length		6 3/8"	6"	9"	9"	9"	6"
Backbox depth		4 1/2"	2 1/2"	2"	1 5/8"	2 7/8"	4 3/4"
Lockset	Mortise without deadbolt	■	■	■	■	---	■
	Mortise with deadbolt 1" throw	---	---	---	---	■	---
	Cylindrical	■	■	■	■	---	■
Number of doors	Single	■	■	■	■	■	---
	Pair	---	---	---	---	---	■
Door and frame type	Hollow metal	---	■	■	■	■	■
	Aluminum	---	■	■	■	■	■
	Wood	■	See note 1 below	---	---	■	■
Options	DS or DS-LC (dual monitor switches)	■	■	■	■	■	■
	EB (entry buzzer - fail-secure only)	■	■	■	■	■	■
	28VDC AC rectifier kit	■	■	■	■	■	■
	16VDC solenoid	■	■	■	■	■	■
Certifications/ Listings	UL 1034	■	■	■	■	■	■
	UL 10C	3 hour	3 hour	3 hour	3 hour	3 hour	3 hour*
Application notes		---	1	---	---	2	3

\* When pair door has inactive leaf.

### Application notes:

- Includes wood frame for retrofit applications.
- Deadbolt must be manually operated.
- Open back electric strike for use on 1 3/4" (44 mm) thick double door applications. 4 3/4" (120 mm) minimum stile required. For a concealed vertical rod and mortise device combination, specify "A" backbox.



## Model specifications

Model number		6222	6223	6224	6224AL	6225	6226
Retrofits model		FA 310-2 ¾ OB	VD 3091 VD 3092	FA 310-2 ¾	FA 310-2RF	FA 310-2 OB	FA 310-2
Latchbolt throw		¾"	¾"	¾"	¾"	¾"	¾"
Face plate length		9"	6"	9"	9"	9"	9"
Backbox depth		2"	4 ½"	2"	1 ⅝"	1 ⅝"	1 ⅝"
Lockset	Mortise without deadbolt	■	■	■	■	■	■
	Mortise with deadbolt 1" throw	---	---	---	---	---	---
	Cylindrical	■	■	■	■	■	■
Number of doors	Single	---	---	---	---	---	---
	Pair	■	■	■	■	■	■
Door and frame type	Hollow metal	■	■	■	---	■	■
	Aluminum	■	■	■	■	■	■
	Wood	---	■	---	---	---	---
Options	DS or DS-LC (dual monitor switches)	■	■	■	■	■	■
	EB (entry buzzer - fail-secure only)	■	■	■	■	■	■
	28VDC AC rectifier kit	■	■	■	■	■	■
	16VDC solenoid	■	■	■	■	■	■
Certifications/ Listings	UL 1034	■	■	■	■	■	■
	UL 10C	3 hour*	3 hour*	3 hour*	3 hour*	3 hour*	3 hour*
Application notes		1	2	3	4	5	6

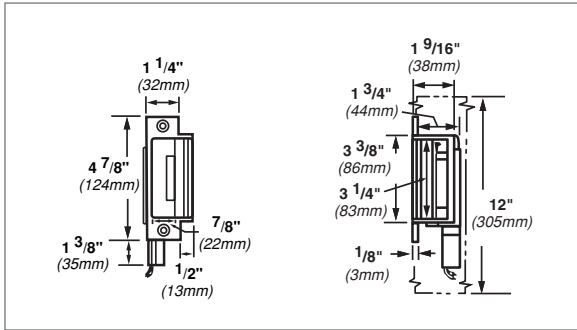
\* When pair door has inactive leaf.

### Application notes:

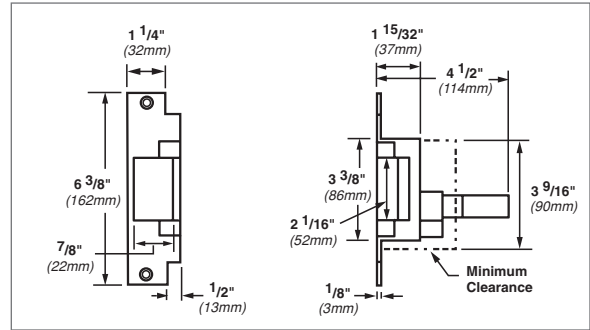
- Open back electric strike for use on 1 ¾" (44 mm) thick double door applications
- Closed back electric strike for use on 1 ¾" (44 mm) thick double door applications. 4 ¾" (120 mm) minimum stile required. For a concealed vertical rod and mortise device combination specify "A" backbox.
- Closed back electric strike for use on 1 ¾" (44 mm) or 2 ¼" (57 mm) thick double door applications.
- Closed back electric strike for use on 1 ¾" (44 mm) or 2 ¼" (57 mm) thick aluminum double door applications.
- Open back electric strike for use on 1 ¾" (44 mm) thick double door applications.
- Closed back electric strike for use on 1 ¾" (44 mm) or 2 ¼" (57 mm) thick double door applications.

# Dimensions

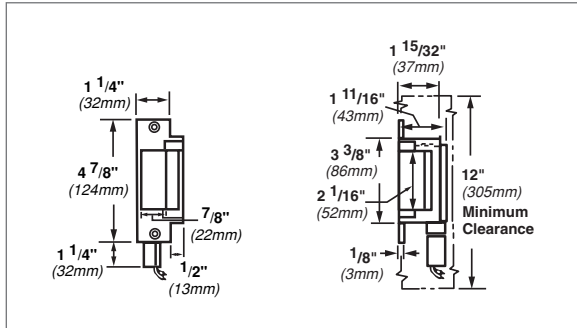
6210



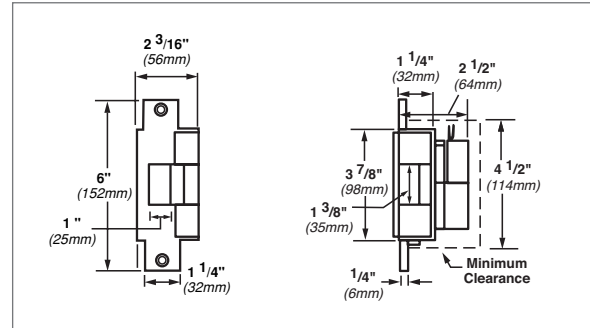
6212WF



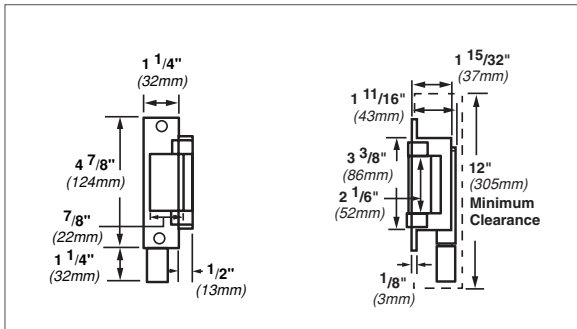
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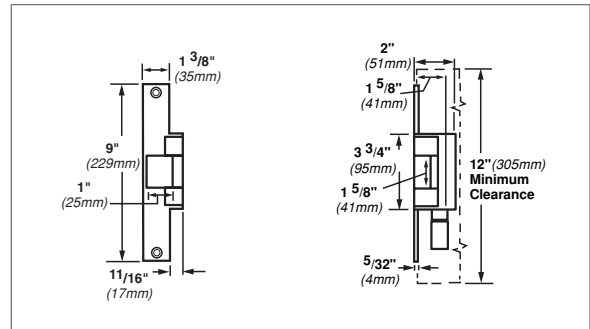
6213



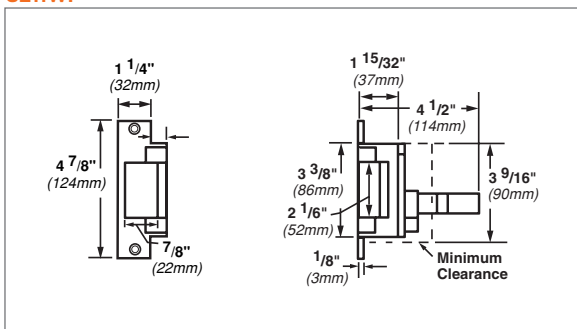
6211AL



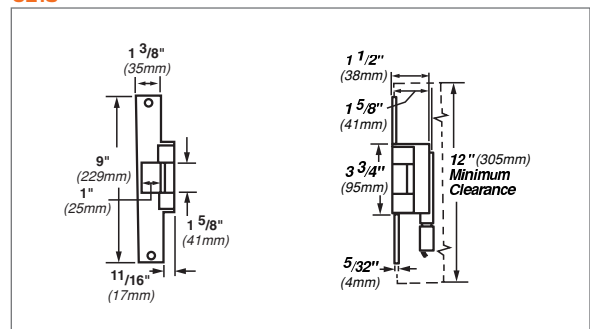
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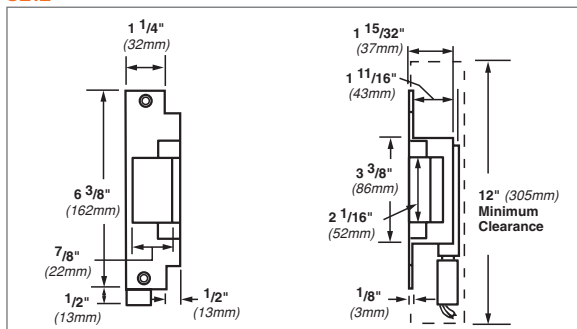
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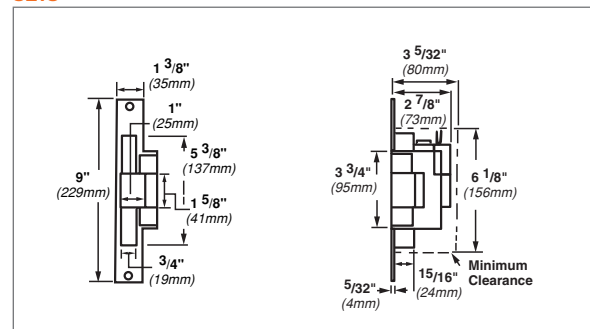
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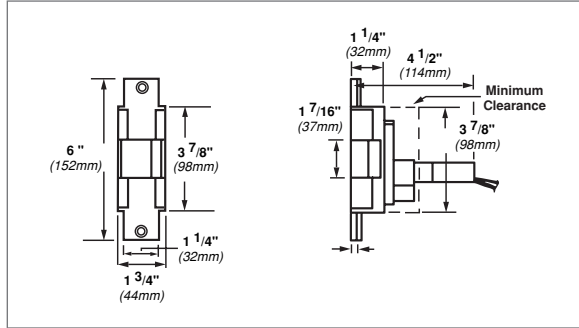


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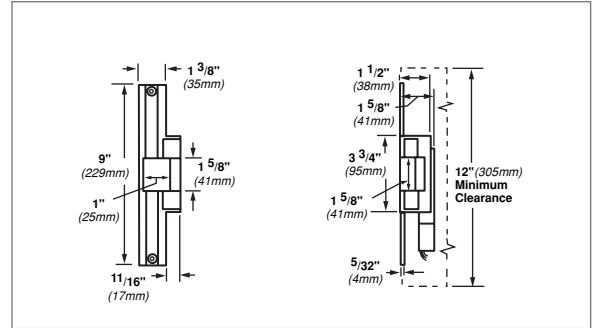


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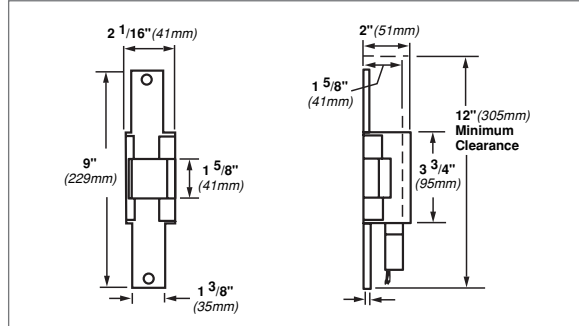
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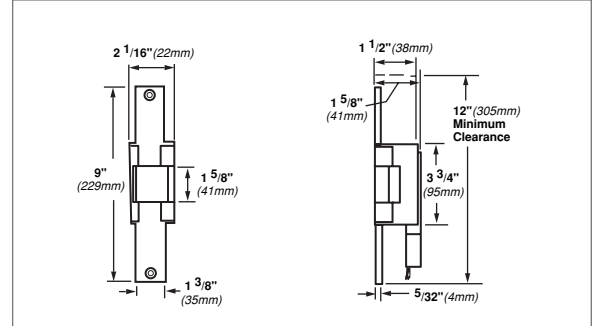
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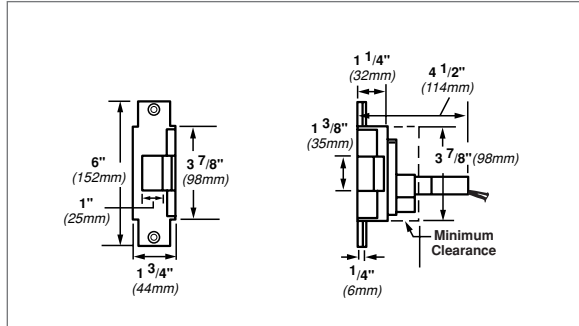
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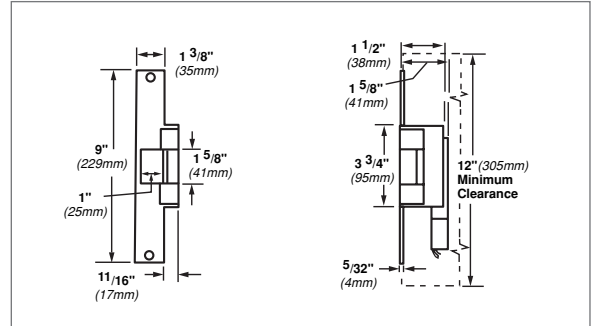
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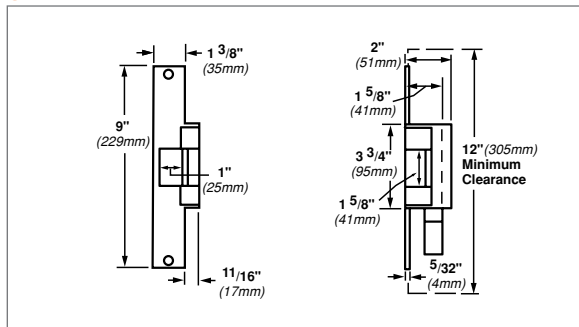
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6224



## Ordering information

6210-FSE-DS-24-S024-US3-EB-CON

Model	Power failure mode	Dual switch*	Voltage	Rectifier kit*	Finish	Buzzer*	Allegion Connect*
1	2	3	4	5	6	7	8

\* Optional

Selections correspond with the numbers above

1	Model
Reference specification chart to make the proper model selection	
2	Power failure mode
FSE	Fail-secure. Requires power to be applied to unlock the strike lip. On loss of power, the strike lip is locked. <b>Fire-rated.</b>
FS	Fail-safe. Requires power to be applied to lock the strike lip. On loss of power, the strike lip is unlocked. <b>Non-fire-rated.</b>
3	Dual switch (optional)
DS	Monitors latch bolt and lock status. DS switches rated for 24 VDC at .050 - 2.0 amps.
DS-LC	Low current option for computer monitoring. Monitors latch bolt & lock status. DS-LS switches rated for 24 VDC at .050 amp or less.
4	Voltage (VDC)
24	Low voltage DC power (standard)
12	Low voltage DC power
16	Low voltage DC power (solenoid sold separately)
28	Low voltage DC power (solenoid sold separately)

If AC power is required, specify rectifier kit.

5	Rectifier kit (optional)
S012	Converts 12 VAC voltage to 12 VDC to operate the solenoid
S024	Converts 24 VAC voltage to 24 VDC to operate the solenoid
6	Finish
US3/BHMA 605	Plated polished brass on stainless steel
US4/BHMA 606	Plated dull brass on stainless steel
US10/BHMA 612	Plated dull bronze on stainless steel
US10B/BHMA 613	Plated dark bronze, oil rubbed on stainless steel
US32/BHMA 629	Stainless steel, polished
US32D/BHMA 630	Stainless steel, satin
7	Buzzer (optional)
EB	Entry Buzzer
Only available if Fail-Secure (FSE) is specified.	
8	Allegion Connect
CON	Allegion Connect Connector
6 in. wire extension harness available	

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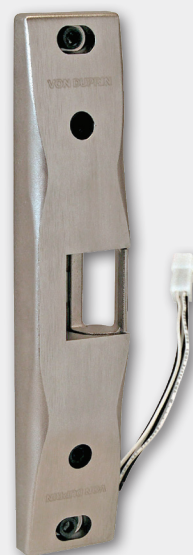
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**VON DUPRIN®**

## 6300 Series

Surface mounted strike  
for rim exit devices



### Overview

Von Duprin electric strikes are known for their reliability, durability and security. The 6300 Series strike is designed to withstand abuse with its heavy-duty stainless steel construction is fully UL 1034 and UL 10C listed.

The 6300 Series strike is designed for use with a variety of rim exit devices. As an electrified strike, it allows remote release of a locked door by activating a movable lip (keeper) using an entry/exit button or credential reader and can be a cost effective means for managing access. It is ideal for aftermarket applications and designed to install without modifying or altering the door frame.

Designed for fail-secure (FSE) only mode, the 6300 Series strike achieves compliance with UL10C for 3-hour fire-rated openings. It also enables field-selectable 12 or 24 VDC with AC conversion optional.

To assure the proper selection of an electric strike on new applications, lockset compatibility charts are shown on the next page. When using a lockset not listed or when retrofitting a strike to an existing application, please contact Von Duprin Technical Support for application assistance.

### Features and benefits

- Designed for use with rim exit devices
- Heavy-duty stainless steel construction in BHMA 630 satin finish
- Surface mounted - requires no alteration or cutting to existing frame
- Field selectable voltage 12VDC or 24VDC
- Plug-in voltage connectors included for ease of installation and removal during strike servicing
- Non-handed design provides greater flexibility
- Suitable for interior and exterior doors
- UL 10C 3-hour fire-rated (fail secure only)
- UL 1034 listed for burglary-resistant electric door strikes
- UL 294 listed for access control system
- CSFM California State Fire Marshal listed
- Dynamic strength 70 ft-lbs
- Endurance 2,000,000 cycles

## 6300 Series power requirements

Model	Voltage	Current	Duty	Amps	Ohms
6300	12V	DC	Continuous	0.50	22
6300	24V	DC	Continuous	0.24	89

Continuous duty = Energized 1 minute or more

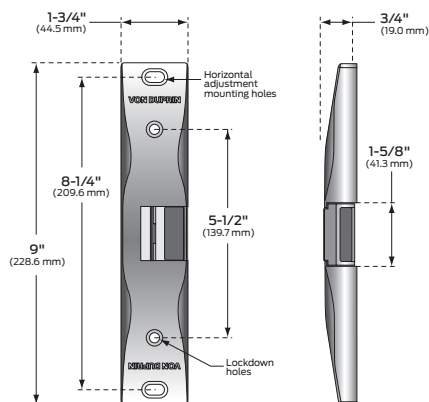
## Rim exit device compatibility 6300 strikes

Manufacturer	Model Number
Von Duprin	VD 22/22-F Rim
Von Duprin	VD 33A/35A Rim*
Von Duprin	VD 55 Rim
Von Duprin	VD 88 Rim
Von Duprin	VD 98/99 and 98/99-F Rim
Falcon	Falcon 24/24-F Rim*
Falcon	Falcon 25/25-F Rim
Falcon	Falcon 19/19-F Rim
Falcon Doromatic	Falcon Doromatic 1590*
Falcon Doromatic	Falcon Doromatic 1790*
Falcon Doromatic	Falcon Doromatic 2090*

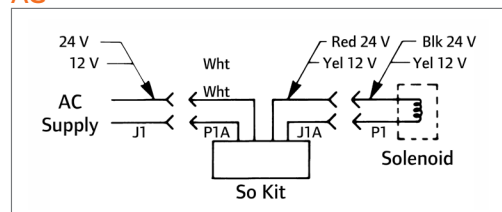
\*Stile and frame condition may affect compatibility.

## Model specifications

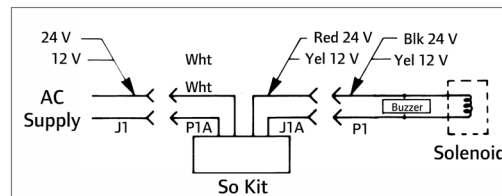
Model number	6300
Retrofits model	N/A
Latchbolt throw	3/4"
Face plate length	9"
Projection	3/4"
Lockset	Rim exit device
Number of doors	Single or pair with mullion
Door/frame type	Hollow metal, aluminum and wood
EB (entry buzzer)	Optional
Certifications/ listings	UL 1034, UL 10C, UL 294, CSFM
Application notes	Surface mounted electric strike ideal for aftermarket applications. Strike designed for use with Von Duprin 98/99, however it can be used with most rim exit devices.



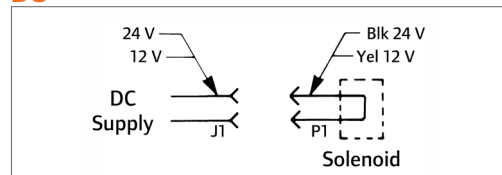
## AC



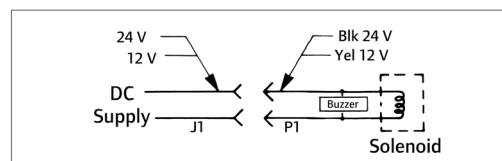
## AC with buzzer



## DC



## DC with Buzzer



## Ordering information

6300-S024-EB

Model	Rectifier kit*	Buzzer*
1	2	3

\* Optional

Selections correspond with the numbers above

1	Model
6300	Surface mounted strike for rim exit devices
2	Rectifier kits (optional)
S012	Converts 12 VAC voltage to 12 VDC to operate the solenoid
S024	Converts 24 VAC voltage to 24 VDC to operate the solenoid
3	Buzzer (optional)
EB	Entry Buzzer

## Standard features

- Power failure mode: Fail-secure only (FSE)
- Voltage: field selectable 24 VDC or 12 VDC
- Finish: stainless steel, satin (BHMA 630/US32D)

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**VON DUPRIN®**

## 6400 Series

Modular strike for mortise and cylindrical locksets



### Overview

The 6400 electric door strike from Von Duprin is designed to be modular and highly configurable to fit nearly any mortise or cylindrical lock. This versatile strike allows the installer to insert and lock-in the deadbolt keeper or plug and deadlatch ramp anywhere within its  $3\frac{1}{8}$ " vertical opening to fit the latch position and functional needs. This, combined with a  $\frac{1}{8}$ " horizontal adjustment, makes this easy-to-install design a good fit for installations where misalignment or a tight fit may be a problem.

As a 3-hour UL 10C listed strike, the 6400 Series is intended as a fail-secure only solution for fire-rated openings. Its durability and quality are shown by its grade 1 certification as a heavy-duty stainless steel strike with over 2,000,000 endurance cycles.

Use it as a time-saving, "go to" strike. The 6400 comes ready for use with prewired plug-in connectors for 12 or 24 VDC voltage that can be changed over to 12 or 24 VAC without a converter kit, two faceplates – one each for offset and centerline locks as well as a trim filler plate, mounting tabs and shims and a self-adhesive template for frame cuts. An optional "plug in" latchbolt monitor is also available and can be added in the field at any time after installation.

### Features and benefits

- Modular design fits cylindrical and nearly any mortise lock
- Heavy-duty stainless steel construction in BHMA 630 satin finish
- Vertical adjustments allow for alignment with a wide variety of mortise locks with offset latches
- Horizontal adjustment of up to  $\frac{1}{8}$ " improves fit on tight door preps
- Can accommodate up to 1" deadbolt (for night latch only)
- Field selectable voltage 12 or 24VDC and 12 to 24VAC
- Plug-in voltage connectors are included for ease of installation and removal during strike servicing
- Optional plug-in latchbolt monitor can be added in the field
- Non-handed, unique internal solenoid design prevents keeper from heating up
- Low current draw (0.19 amps @ 24 VDC)
- Suitable for interior and exterior doors
- 3-hour fire-rated to UL 10C (fail secure only)
- UL 1034 listed for burglary-resistant electric door strikes
- UL 294 listed for access control system
- CSFM California State Fire Marshal listed
- ANSI/BHMA A156.31, Grade 1 certified
- Static strength: 1500 lbs
- Dynamic strength 70 ft-lbs
- Endurance 2,000,000 cycles

## Lockset compatibility

Vertical adjustment of the deadbolt keeper or deadlatch ramp allows for alignment with a wide variety of mortise locks with offset latches.

Accommodates up to 1" deadbolt\* Up to 1/8" horizontal adjustment for misaligned frames.

\* Night-latch function only, bolt will not release

## Wiring Instructions

Use the appropriate wire harness supplied.

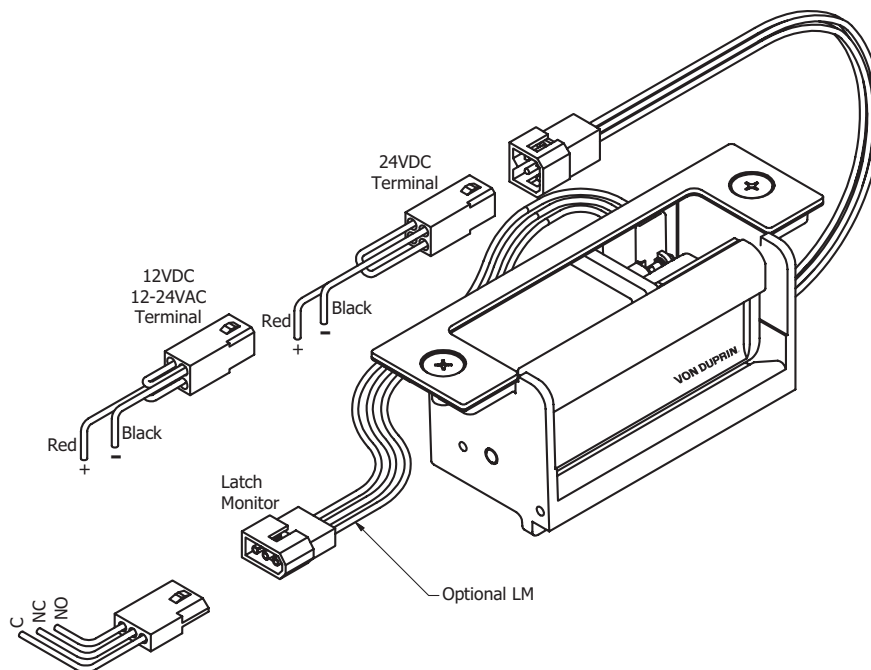
- 12V for 12VDC & 12-24VAC
- 24 for 24VDC only

Attach the red wire to (+) positive of the power supply. Attach the black wire to the (-) negative of the power supply. If using AC power, polarity is not observed.

Note: If a suppression diode is required for access control, observe proper polarity.

### Latch monitor wires

- |        |   |                   |
|--------|---|-------------------|
| Black  | = | Common (C)        |
| Blue   | = | Normal Close (NC) |
| Orange | = | Normal Open (NO)  |



## 6400 Series power requirements

Model	Mode	Voltage	Duty	Sound	Amps <sup>1</sup>	Ohms <sup>2</sup>
6400	Fail-locked	12 VDC	Continuous	Silent	.375	37
6400	Fail-locked	24 VDC	Continuous	Silent	.190	148
6400	Fail-locked	12-24 VAC	Intermittent	Buzz	.280 - .565	37

Intermittent duty = Energized less than 1 min. with duty ratio 1:5; Continuous duty = Energized 1 min. or more.

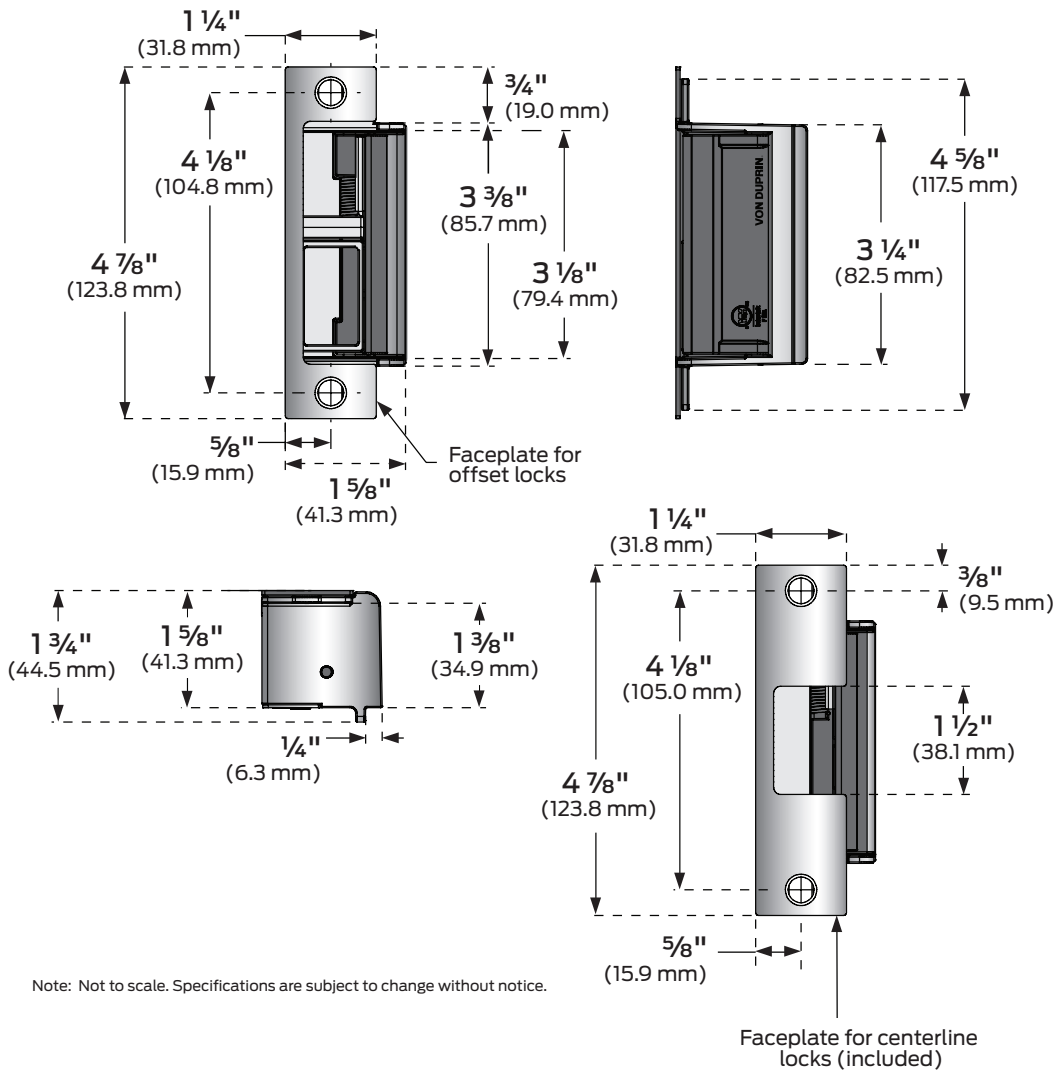
<sup>1</sup> Ratings are based on maximum current draw at +10°C and include initial power-up current draw.

<sup>2</sup> Nominal resistance at +25°C +/- 7% tolerance.

## Model specifications

Model number	6400
Latchbolt throw	3/4" (Also accomodates 1" deadbolt as a nightlatch only - no release)
Face plate length	4 7/8" (Includes two face plates: Centerline and Off-set latch entries)
Backbox depth	1 3/4"
Finish	US 32D/BHMA 630
Lockset	Cylindrical, mortise, mortise exit
Number of doors	Single
Door/frame type	Hollow metal, aluminum & wood
Options	2 Rectifier kits: <ul style="list-style-type: none"><li>▪ S012 Converts 12 VAC voltage to 12 VDC to operate the solenoid</li><li>▪ S024 Converts 24 VAC voltage to 24 VDC to operate the solenoid</li></ul> EB (Entry Buzzer)
Certifications/ Listings	ANSI/BHMA A156.31 Grade 1, 3-hour fire rated to UL 10C (FSE only), UL 1034, UL 294, CSFM
Application notes	Modular electric strike ideal for aftermarket applications. Fail-secure only for fire-rated openings.

Dimensions



Ordering information

6400-S024-EB

Model	Rectifier kit*	Buzzer*
1	2	3

\* Optional

Selections correspond with the numbers above

1	Model
6400	Modular Strike
2	Rectifier kit (optional)
	S012 Converts 12 VAC voltage to 12 VDC to operate the solenoid
	S024 Converts 24 VAC voltage to 24 VDC to operate the solenoid
3	Buzzer (optional)
EB	Entry buzzer

Accessories

- LM6400 Latchbolt monitor - indicates when door is latched (ships separately)

Standard features

- Power failure mode: Fail-secure only (FSE)
- Voltage: Field selectable 12 or 24 VDC and 12 or 24 VAC voltage
- Finish: Stainless steel, satin (BHMA 630/US 32D)
- Centerline and offset face plates included
- Also includes: two plug-in voltage connectors, self-adhesive template for frame cuts, trim filler plate, mounting tabs and shims, as well as tamper-resistant screws with a security driver bit

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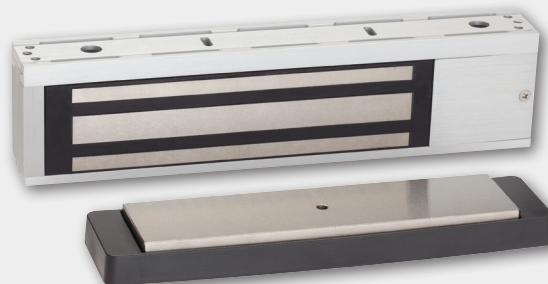


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# M490/492

## Electromagnetic locks



### Overview

M400 Series electromagnetic locks from Schlage are designed with the customer in mind to be robust, easy-to-install, and secure. The unique bayonet mounting feature makes installation easier, allowing the installer to have their hands free during the mounting process.

All M400 Series electromagnetic locks are symmetrical with field-selectable handing, allowing optimum placement of the magnet no matter the application. They are designed to provide automatic voltage sensing for 12 and 24 volts along with polarity protection to make wiring less complex. M490 models are tested and certified to meet or exceed UL 1034 and BHMA 1500 lb hold force requirements.

The M490 electromagnetic locks come in four configurations to meet your specific security needs. Single and double door models are offered in standard configurations. Plus versions of these models with "P" designations add intelligent sensing and reporting features needed to integrate with access control systems along with additional available options. Kits are also available for top jamb, double door, and glass door applications.

### Features and benefits

- 1500 lb. hold force rating for maximum security applications
- "Plus" models offer magnetic bond sensor (MBS), adjustable relock time delay (RTD) and door position switch (DPS)
- Automatic voltage selection (AVS)
- Symmetrical design with field-selectable handing for optimum placement
- Bayonet mount simplifies installation by eliminating the need to hold lock overhead while securing
- Armature mount pivot feature compensates for slight opening imperfections
- Optional mounting kits available for top jamb mount, double door and Herculite glass doors
- Aluminum housing in 628 satin finish
- ANSI/BHMA 156.23 Grade 1, UL 1034, UL 10C, UL 294, cUL, CFMS certifications
- Limited lifetime warranty on magnetic coil assembly

## Additional features

### All models

- Automatic Voltage Selection (AVS) senses the voltage applied to the lock and responds accordingly

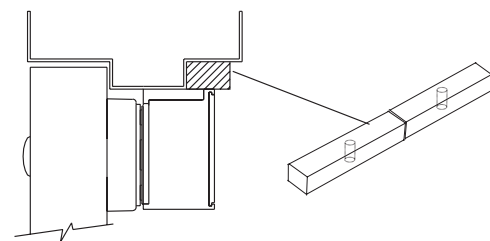
### M490P/M492P

- Magnetic Bond Sensor (MBS) monitors the strength of the bond between the lock and armature so you know the door is secure
- Door Position Switch (DPS) monitors whether the door is open or closed
- Relock Time Delay (RTD) provides a relock delay that is adjustable from 0.5 to 30 seconds
- Optional accessories (P models only)
  - ATS/LED Combines anti-tamper switch (ATS) with magnetic bond sensor in one kit.
    - ATS provides an indication that the cover of the magnet is securely fastened to the lock and that the on board circuitry is secure
    - Magnetic bond sensor indicator (LED) provides visual indication of magnetic bond at the lock

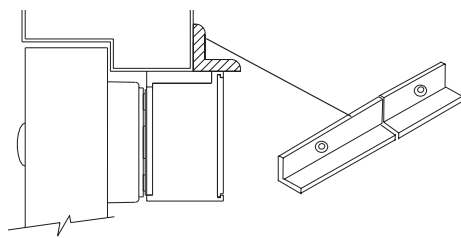
### Optional accessories (for all)

- Herculite door bracket kit
- Top jamb (inswinging doors) kit
- Double door connector kit (converts two single magnetic locks to a double)

### Filler Plate



### Angle Bracket



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## M490/M492 electromagnetic lock specifications

Specification	M490/M490P	M492/M492P
Holding force	Meets or exceeds BHMA standard of 1500 lbs	Meets or exceeds BHMA standard of 1500 lbs
Door type	Single	Double
Input voltage (auto selected)	12/24 VDC	12/24 VDC
Current draw	.65A @ 12 VDC .35A @ 24 VDC	1.3A @ 12 VDC .7A @ 24 VDC
Height	3"	3"
Length	12 1/2"	25 1/16"
Depth	1 3/4"	1 3/4"
Weight (approximate)	14 lbs	28 lbs
Certifications	UL 10C, UL 1034, UL 294, ANSI/BHMA A156.23, cUL, CSFM	UL 10C, UL 1034, UL 294, ANSI/BHMA A156.23, cUL, CSFM
Temperature	0° to 49°C (32° to 120° F)	0° to 49°C (32° to 120° F)
Wire gauge	14-22 AWG	14-22 AWG

## Filler plates and angle brackets specifications

Length	12 1/2"
--------	---------

### Filler plates

Width x Height	Plate no.
1 1/4" x 1/8"	4901F
1 1/4" x 1/4"	4902F
1 1/4" x 3/8"	4903F
1 1/4" x 1/2"	4904F
1 1/4" x 5/8"	4905F
3/4" x 1/2"	4906F
3/4" x 5/8"	4907F
3/4" x 3/4"	4908F

### Angle brackets

Width x Height	Bracket no.
1" x 1"	4901A
1 1/2" x 1"	4902A
1 1/2" x 1 1/2"	4903A
1 1/2" x 2"	4904A
1 1/2" x 2 1/2"	4905A

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# M450/452

## Electromagnetic locks



### Overview

M400 Series electromagnetic locks from Schlage are designed with the customer in mind to be robust, easy-to-install, and secure. The unique bayonet mounting feature makes installation easier, allowing the installer to have their hands free during the mounting process.

All M400 Series electromagnetic locks are symmetrical with field-selectable handing, allowing optimum placement of the magnet, no matter the application. They are designed to provide automatic voltage sensing for 12 and 24 volts along with polarity protection to make wiring less complex. M450 models are tested and certified to meet or exceed UL 1034 and BHMA 1000 lb hold force requirements.

The M450 electromagnetic locks come in four configurations to meet your specific security needs. Single and double door models are offered in standard configurations. Plus versions of these models with "P" designations add intelligent sensing and reporting features needed to integrate with access control systems along with additional available options. Kits are also available for top jamb, double door, and glass door applications.

### Features and benefits

- 1000 lb. hold force rating for high security applications
- "Plus" models offer magnetic bond sensor (MBS), adjustable relock time delay (RTD) and door position switch (DPS)
- Automatic voltage selection (AVS)
- Symmetrical design with field-selectable handing for optimum placement
- Bayonet mount simplifies installation by eliminating the need to hold lock overhead while securing
- Armature mount pivot feature compensates for slight opening imperfections
- Optional mounting kits available for top jamb mount, double door and Herculite glass doors
- Aluminum housing in 628 satin finish
- ANSI/BHMA 156.23 Grade 1, UL 1034, UL 10C, UL 294, cUL, CFMS certifications
- Limited lifetime warranty on magnetic coil assembly

## Additional features

### All models

- Automatic Voltage Selection (AVS) senses the voltage applied to the lock and responds accordingly

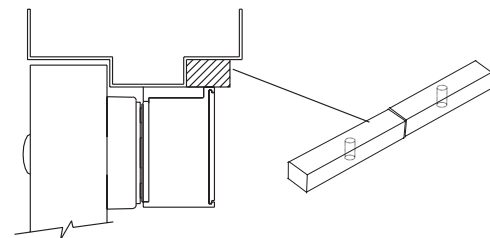
### M450P/M452P

- Magnetic Bond Sensor (MBS) monitors the strength of the bond between the lock and armature so you know the door is secure
- Door Position Switch (DPS) monitors whether the door is open or closed
- Relock Time Delay (RTD) provides a relock delay that is adjustable from 0.5 to 30 seconds
- Optional accessories (P models only)
  - ATS/LED Combines anti-tamper switch (ATS) with magnetic bond sensor in one kit.
    - ATS provides an indication that the cover of the magnet is securely fastened to the lock and that the on board circuitry is secure
    - Magnetic bond sensor indicator (LED) provides visual indication of magnetic bond at the lock

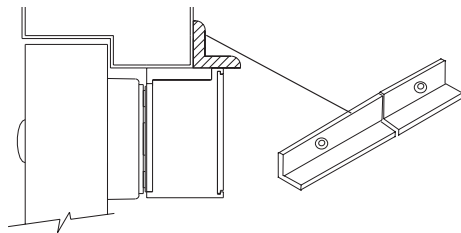
### Optional accessories (for all)

- Herculite door bracket kit
- Top jamb (inswinging doors) kit
- Double door connector kit (converts two single magnetic locks to a double)

### Filler Plate



### Angle Bracket



## M450/M452 electromagnetic lock specifications

Specification	M450/M450P	M452/M452P
Holding force	meets or exceeds BHMA standard of 1000 lbs	1000 lbs per door leaf
Door type	Single	Double
Input voltage (auto selected)	12/24 VDC	12/24 VDC
Current draw	.75A @ 12 VDC .38A @ 24 VDC	1.5A @ 12 VDC .75A @ 24 VDC
Height	3"	3"
Length	10 1/4"	20 9/16"
Depth	1 3/4"	1 3/4"
Weight (approximate)	10 lbs	20 lbs
Certifications	UL 1034, UL 10C, UL 294, ANSI/BHMA156.23, cUL, CSFM	UL 1034, UL 10C, UL 294, ANSI/BHMA156.23, cUL, CSFM
Temperature	0° to 49°C (32° to 120° F)	0° to 49°C (32° to 120° F)
Wire gauge	14-22 AWG	14-22 AWG

## Filler plates and angle brackets specifications

Length	10 1/4"
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### Filler plates (order 2 if purchasing a double lock)

Width x Height	Plate no.
1 1/4" x 1/8"	4501F
1 1/4" x 1/4"	4502F
1 1/4" x 3/8"	4503F
1 1/4" x 1/2"	4504F
1 1/4" x 5/8"	4505F
3/4" x 1/2"	4506F
3/4" x 5/8"	4507F
3/4" x 3/4"	4508F

### Angle brackets (order 2 if purchasing a double lock)

Width x Height	Bracket no.
1" x 1"	4501A
1 1/2" x 1"	4502A
1 1/2" x 1 1/2"	4503A
1 1/2" x 2"	4504A
1 1/2" x 2 1/2"	4505A

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# M420/422

## Electromagnetic locks



### Overview

M400 Series electromagnetic locks from Schlage are designed with the customer in mind to be robust, easy-to-install, and secure. The unique bayonet mounting feature makes installation easier, allowing the installer to have their hands free during the mounting process.

All M400 Series electromagnetic locks are symmetrical with field-selectable handing, allowing optimum placement of the magnet, no matter the application. They are designed to provide automatic voltage sensing for 12 and 24 volts along with polarity protection to make wiring less complex. M420 models are tested and certified to meet or exceed UL 1034 and BHMA 500 lb hold force requirements.

The M420 electromagnetic locks come in four configurations to meet your specific security needs. Single and double door models are offered in standard configurations. Plus versions of these models with "P" designations add intelligent sensing and reporting features needed to integrate with access control systems along with additional available options. Kits are available for top jamb, double door, and glass door applications.

### Features and benefits

- 500 lb. hold force rating for traffic control applications
- "Plus" models offer magnetic bond sensor (MBS), adjustable relock time delay (RTD) and door position switch (DPS)
- Automatic voltage selection (AVS)
- Symmetrical design with field-selectable handing for optimum placement
- Bayonet mount simplifies installation by eliminating the need to hold lock overhead while securing
- Armature mount pivot feature compensates for slight opening imperfections
- Optional mounting kits available for top jamb mount, double door and Herculite glass doors
- Aluminum housing in 628 satin finish
- ANSI/BHMA 156.23 Grade 1, UL 1034, UL 10C, UL 294, cUL, CFMS certifications
- Limited lifetime warranty on magnetic coil assembly

## Additional features

### All models

- Automatic Voltage Selection (AVS) senses the voltage applied to the lock and responds accordingly

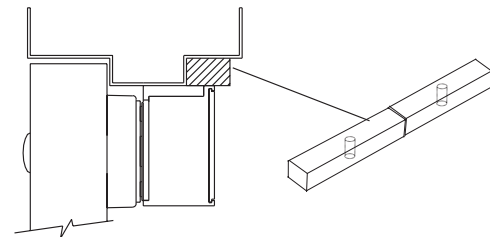
### M420P/M422P

- Magnetic Bond Sensor (MBS) monitors the strength of the bond between the lock and armature so you know the door is secure
- Door Position Switch (DPS) monitors whether the door is open or closed
- Relock Time Delay (RTD) provides a relock delay that is adjustable from 0.5 to 30 seconds
- Optional accessories (P models only)
  - ATS/LED Combines anti-tamper switch (ATS) with magnetic bond sensor in one kit.
    - ATS provides an indication that the cover of the magnet is securely fastened to the lock and that the on board circuitry is secure
    - Magnetic bond sensor indicator (LED) provides visual indication of magnetic bond at the lock

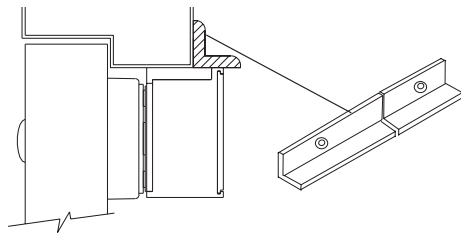
### Optional accessories (for all)

- Herculite door bracket kit
- Top jamb (inswinging doors) kit
- Double door connector kit (converts two single magnetic locks to a double)

### Filler Plate



### Angle Bracket



## M420/M422 electromagnetic lock specifications

Specification	M420/M420P	M422/M422P
Holding force	meets or exceeds BHMA standard of 500 lbs	meets or exceeds BHMA standard of 500 lbs
Input voltage (auto selected)	12/24 VDC	12/24 VDC
Current draw (amps standard unit)	.75A @ 12 VDC .38A @ 24 VDC	1.5A @ 12 VDC .76A @ 24 VDC
Automatic dual voltage	12/24 VDC	12/24 VDC
Height	2 1/2"	2 1/2"
Length	9"	18 1/16"
Depth	1 3/8"	1 3/8"
Weight (approximate)	6 lbs	12 lbs
Certifications	UL 1034, UL 10C, UL 294, ANSI/BHMA156.23, cUL, CSFM	UL 1034, UL 10C, UL 294, ANSI/BHMA156.23, cUL, CSFM
Temperature	0° to 49°C (32° to 120° F)	0° to 49°C (32° to 120° F)
Wire gauge	14-22 AWG	14-22 AWG

## Filler plates and angle brackets specifications

Length	9"
--------	----

### Filler plates

Width x Height	Plate no.
1 1/4" x 1/8"	4201F
1 1/4" x 1/4"	4202F
1 1/4" x 3/8"	4203F
1 1/4" x 1/2"	4204F
1 1/4" x 5/8"	4205F
3/4" x 1/2"	4206F
3/4" x 5/8"	4207F
3/4" x 3/4"	4208F

### Angle brackets

Width x Height	Bracket no.
1" x 1"	4201A
1 1/2" x 1"	4202A
1 1/2" x 1 1/2"	4203A
1 1/2" x 2"	4204A
1 1/2" x 2 1/2"	4205A

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# M490G

## Electromagnetic gate lock



### Overview

The Schlage M490G is a weather resistant electromagnetic gate lock with 1500 lbs of holding force designed for use on all types of sliding and swinging gates. As a high security magnetic lock, it can accommodate misalignment problems while supplying superior holding force.

A 1/2" compression connector is provided for installation of 1/2" EMT conduit, ensuring protection of hook-up wiring from weather and vandalism. Heavy-duty plating resists corrosion of mating surfaces, providing a low maintenance locking device.

A modified top jamb mounting bracket allows a single M490G to be mounted in a variety of positions. The M490G gate lock may be mounted to any gate frame or post. Special brackets may be required to adapt the lock to a particular frame or post. It is important that the lock is mounted so that the armature pulls straight back from the magnet face.

The M490G can be field configured for either 12 or 24 VDC operation. Magnetic Bond Sensor (MBS) and Gate Status Monitor (DPS) are standard.

### Features and benefits

- 1500 lb. hold force rating
- Magnetic bond sensor (MBS) and gate status monitor (DPS)
- Field selectable 12 or 24VDC operation
- Built-in voltage spike suppressor
- Electroless nickel plated finish
- Corrosion and weather resistant for exterior use
- Universal mounting brackets for swinging or sliding gate applications
- 1/2" EMT compression fitting protects hookup wires from weather and vandalism
- Two foot wire leads
- Accommodates gate misalignment
- No moving parts - low maintenance
- Limited lifetime warranty on magnetic coil assembly
- ANSI/BHMA 156.23 Outdoor rated

## Standard features

### M490G

- Magnetic Bond Sensor (MBS) monitors the strength of the bond between the lock and armature so you know the door is secure
- Door Position Switch (DPS) monitors whether the door is open or closed
- Universal Mounting Brackets for swinging or sliding gate applications
- Built-in voltage spike suppression
- ½" EMT compression fitting
- Special corrosion resistant plating

### M490G electromagnetic gate lock specifications

Specifications	M490G
Holding force	Meets or exceeds BHMA standard of 1500 lbs
Input voltage (field selectable)	12/24 VDC
Current draw (amps standard unit)	.65A @ 12 VDC .35A @ 24 VDC
Height	3"
Length	11"
Depth	1 ¾"
Weight (approximate)	14 lbs
Certifications	ANSI/BHMA 156.23 Outdoor rated
Temperature	-31° to 151° F (-35° to 66° C)
Wire gauge	14-22 AWG

### Filler plates

Length	11"
Width x Height	Plate no.
1 ¼" x 1/8"	49G1F
1 ¼" x 1/4"	49G2F
1 ¼" x 3/8"	49G3F
1 ¼" x 1/2"	49G4F
1 ¼" x 5/8"	49G5F
1 ¼" x 3/4"	49G6F
¾" x 1/2"	49G7F
¾" x 5/8"	49G8F

### Angle brackets

Length	11"
Width x Height	Bracket no.
1" x 1"	49G1A
1 ½" x 1"	49G2A
1 ½" x 1 ½"	49G3A
1 ½" x 2"	49G4A
1 ½" x 2 ½"	49G5A

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# M490DE

Delayed egress  
electromagnetic lock



## Overview

The Schlage M490DE delayed egress electromagnetic lock is designed to meet NFPA 101 Life Safety Code while providing the same robust, easy-to-install, security of our M400 Series magnetic locks. The M490DE has a 15-second delayed egress timer with audible alarm which can be configured to trigger by an internal “plunger switch,” or by external contacts, such as a request-to-exit push bar.

All M400 Series electromagnetic locks are symmetrical with field-selectable handing, allowing optimum placement of the magnet no matter the application. They are designed to provide automatic voltage sensing for 12 and 24 volts along with polarity protection to make wiring less complex.

M490DE electromagnetic locks come in four configurations to meet your specific security needs. Single and double door models are offered in standard configurations. Plus versions of these models with “P” designations add intelligent sensing and reporting features needed to integrate with access control systems.

This easy-to-install, cost effective solution provides maximum access security and safety.

## Features and benefits

- 1300 lb. hold force rating for maximum security applications
- 15 second delay - activated by internal plunger switch or auxiliary input
- LED Indication with audible alerts
- Release input, reset input, fire alarm input
- Plus models offer magnetic bond sensor (MBS), adjustable relock time delay (RTD) and door position switch (DPS)
- Automatic voltage selection (AVS)
- Bayonet mount simplifies installation by eliminating the need to hold lock overhead while securing
- Armature pivot feature compensates for slight opening imperfections
- Aluminum housing in 628 satin finish
- ANSI/BHMA 156.24, UL special locking arrangements, UL 10C, cUL, CSFM, UL294 certifications
- Meets NFPA 101 life safety code
- BOCA compliant option available
- Limited lifetime warranty on magnetic coil assembly

## Standard features

### ALL MODELS

- Auto Voltage Selection (AVS) senses the voltage applied to lock and responds accordingly
- Internal plunger switch activates delayed egress timer

### Optional accessories

- Herculite door bracket kit (HDB)

### M490DEP/M490DEP-2

- Magnetic Bond Sensor (MBS) monitors the strength of the bond between the lock and armature so you know the door is secure
- Door Position Switch (DPS) monitors whether the door is open or closed
- BOCA compliant (upon request) with options for 15- or 30-second time delay

## Ordering information

### STANDARD MODELS

- **M490DE** - Single lock, 15-second delay
- **M490DE-2** - Double lock, separate housing, 15-second delay

### Optional preset

- **M490DE-30S** - Single lock, factory set 30-second delay (requires fire marshal letter of approval)

### PLUS MODELS

- **M490DEP** - Single lock, 15-second delay
- **M490DEP-2** - Double lock, 15-second delay
- **M490DEP-BC** - BOCA compliant single lock, factory set 15-second delay with auto re-armed and locked state after door is opened and re-closes
- **M490DEP-BC30S** - BOCA compliant single lock, factory set 30-second delay with auto re-armed and locked state after door is opened and re-closes (requires fire marshal letter of approval)

## M490DE electromagnetic delayed egress lock specifications

Specification	M490DE/M490DEP	M490DE-2/M490DEP-2
Holding force	1300 lbs	1300 lbs per door leaf
Input voltage (auto selected)	12/24 VDC	12/24 VDC
Current draw	.75A @ 12 VDC .45A @ 24 VDC	1.25A @ 12 VDC .76A @ 24 VDC
Height	3"	3"
Length	12 1/2"	25 1/16"
Depth	3 1/16"	3 1/16"
Weight (approximate)	16 lbs	32 lbs
Certifications	ANSI/BHMA 156.24, UL special locking arrangement, UL10C, cUL, CSFM, UL294	
Temperature	0° to 49°C (32° to 120° F)	0° to 49°C (32° to 120° F)
Wire gauge	14-22 AWG	14-22 AWG

## Filler plates

Length	12 1/2"
Width x Height	Plate no.
1 1/4" x 1/8"	4901F
1 1/4" x 1/4"	4902F
1 1/4" x 3/8"	4903F
1 1/4" x 1/2"	4904F
1 1/4" x 5/8"	4905F
3/4" x 1/2"	4906F
3/4" x 5/8"	4907F
3/4" x 3/4"	4908F

## Angle brackets

Length	12 1/2"
Width x Height	Bracket no.
1" x 1"	4901A
1 1/2" x 1"	4902A
1 1/2" x 1 1/2"	4903A
1 1/2" x 2"	4904A
1 1/2" x 2 1/2"	4905A

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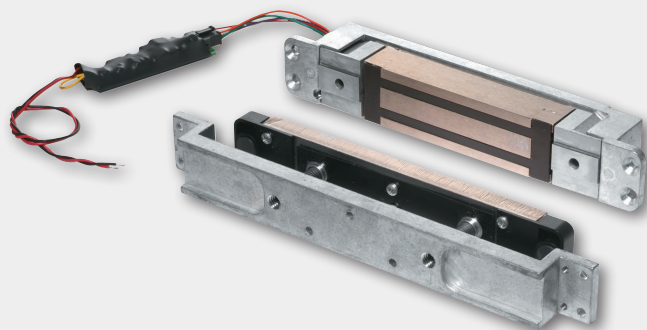
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# GF3000

## Mortise mounted shear lock



### Overview

GF3000 Series shear locks feature a patented design, offering advances over any shear lock in the market.

A microprocessor-based control module provides advanced electronic features. This circuitry automatically senses and adjusts input voltage, allowing for operation from 12 to 24 volt DC power sources.

These mortise shear locks offer the advantage of a totally concealed locking mechanism, providing superior security and appearance while allowing for normal door movement. The patented design incorporates locking “tabs” on the magnet assembly with mating grooves in the armature plate.

The GF3000 Series locks are ideally suited for commercial grade quality hollow metal doors and frames, as well as herculite doors with top rail. Advances in design provide low operating temperatures, making these shear lock suitable for use in the growing demand for concealed locks in wood frames.

The GF3000TRD model is available when armature adjustment is required from the edge of the door due to flush ceiling conditions. The GF3000BRD model is available when no top rail mounting is available.

### Features and benefits

- 3000 lb. hold force rating
- Fully concealed shear lock mortise design
- Automatic voltage selection (AVS) 12/24 VDC (filtered)
- Built-in automatic relock switch
- Adjustable time delay on relock, 0-30 seconds
- Low temperature operation
- Microprocessor controlled
- Optional Magnetic Bond Sensor (MBS) to monitor the secure/not secure condition of the lock
- Optional Door Status Monitor (DSM) to sense the open/closed position of the door
- ANSI/BHMA 156.23, UL 10C, cUL, and CSFM certifications
- Limited lifetime warranty on magnetic coil

## Specifications

	GF3000	GF3000TRD	GF3000BRD
Holding force	3000 lbs	3000 lbs	3000 lbs
Input voltage*	12/24 VDC	12/24 VDC	12/24 VDC
Current draw	.90A @ 12VDC .45A @ 24VDC	.90A @ 12VDC .45A @ 24VDC	.90A @ 12VDC .45A @ 24VDC
Lock body Dimensions (L x H x D)	9 1/2" x 1 1/2" x 1 1/2"	9 1/2" x 1 1/2" x 1 1/2"	N/A
Lock body with mounting tabs	11 9/16" x 1 1/2" x 1 1/2"	11 9/16" x 1 1/2" x 1 1/2"	7 1/16" x 1 1/2" x 1 3/16"
Threshold box	N/A	N/A	7 1/2" x 2 1/4" x 1 3/4"
Armature	8 3/8" x 1 3/8" x 1 1/2"	8 3/8" x 1 3/8" x 1 1/2"	6 1/8" x 1 3/8" x 7/16"
Armature bracket	10 5/8" x 1 3/8" x 1"	6 1/4" x 1 3/8" x 1 1/4"	6 1/4" x 1 3/8" x 1 1/4"
Weight	7 lbs.	6 lbs.	6 lbs.
Certifications	UL 10C, cUL, CSFM, ANSI/BHMA 156.23	UL 10C, cUL, CSFM, ANSI/BHMA 156.23	UL 10C, cUL, CSFM, ANSI/BHMA 156.23

\*Requires filtered, regulated power supply.

## Ordering information

- **GF3000** (Standard Model): Fully concealed shear lock. The armature mounts into top of door or top rail and magnet mounts into header or frame. Air gap adjustment is from top edge of door. Vertical mounting of magnet and armature is also an option.
- **GF3000TRD** (Top Rail Door): Fully concealed shear lock intended for use when top of door is not accessible for air gap adjustment after door is hung. Armature mounts into top of door or top rail and magnet mounts into header or frame. Air gap adjustment is from latch edge of door.
- **GF3000BRD** (Bottom Rail Door): Fully concealed shear lock intended for use when top of door is not accessible for air gap adjustment after door is hung. Armature mounts into bottom of door or bottom rail and magnet mounts into floor. Air gap adjustment is from edge of armature. Popular application for Herculite doors.

### Options

- **DSM/MBS** - Door Status Monitor/Magnetic Bond Sensor

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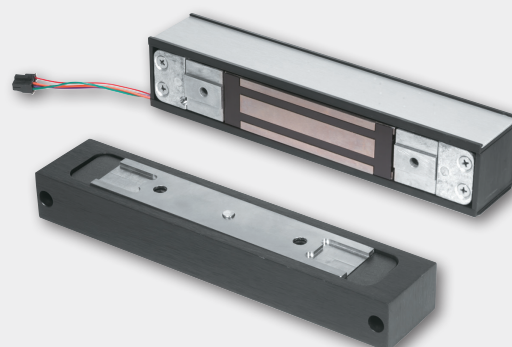


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# GF3000

Surface mounted  
shear lock



## Overview

GF3000 Series shear locks' patented design provides powerful holding force in low profile models for inswinging and outswinging doors. A microprocessor-based control module provides advanced electronic features. This circuitry automatically senses and adjusts input voltage, allowing for operation from 12 to 24 volt DC power sources.

The lightweight, black anodized housing can be quickly mounted without need of brackets and is finished off with a satin aluminum decorative plate for a clean look.

## Features and benefits

- 3000 lb. hold force rating
- Automatic voltage selection (AVS) 12/24 VDC (filtered)
- Built-in automatic relock switch
- Adjustable time delay on relock, 0-30 seconds
- Low temperature operation
- Microprocessor controlled
- Optional Magnetic Bond Sensor (MBS) to monitor the secure/not secure condition of the lock
- Optional Door Status Monitor (DSM) to sense the open/closed position of the door
- Housing is black anodized with BHMA 628 satin aluminum decorative plate
- ANSI/BHMA 156.23, UL 10C, cUL, and CSFM certifications
- Limited lifetime warranty on magnetic coil assembly

## Specifications

	GF3000SM	GF3000TJ
Holding force (lbs.)	3000	3000
Door type	Outswinging	Inswinging
Current Draw	.90A @ 12VDC .45A @ 24VDC	.90A @ 12VDC .45A @ 24VDC
Lock housing (L x H x D)	9 13/16" x 1 7/8" x 2"	9 13/16" x 1 7/8" x 2"
Armature housing (L x H x D)	9 13/16" x 1 1/4" x 2"	9 13/16" x 1 1/4" x 2"
Weight	9 lbs.	9 lbs.
Certifications	UL10C, cUL, CSFM, ANSI/BHMA 156.23	UL10C, cUL, CSFM, ANSI/BHMA 156.23

## Ordering information

- **GF3000SM (Surface Mounted):** Surface mounted shear lock intended for use on outswinging doors. Surface mounted magnet mounts under header and surface mounted armature assembly mounts into door just under magnet assembly. Air gap adjustment is from top of door.
- **GF3000TJ (Top Jamb):** Surface mounted shear lock intended for use on inswinging doors that are flush with frame's inner face. Surface mounted armature assembly mounts onto top of door or top rail and surface mounted magnet mounts onto frame's face. Air gap adjustment is from top of door.

### Options

- **DSM/MBS** - Door Status Monitor/Magnetic Bond Sensor

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# 320M

Mortise mount sliding door  
electromagnetic lock



## Overview

Schlage provides the industry's most complete selection of electromagnetic locks. The 320M MiniLine™ is a UL listed, for mortise mounted electromagnetic lock designed for use on sliding doors. It interfaces with electronic access control systems, automatic door operators, and fire or hazard sensing systems to provide egress upon detectable emergency. With a fail-safe design, it offers an excellent solution for both security and life safety requirements when connected to the fire alarm circuit.

The 320M has been installed in thousands of locations worldwide including airports, hospitals, nursing homes, schools, universities, libraries, museums, retail and office buildings, laboratories, and government buildings.

## Features and benefits

- 500 lb. hold force rating
- Compact, mortise mount design for sliding doors
- Includes mounting tabs and armature mounting block
- Low maintenance - no moving parts
- Meets security and life safety requirements
- Field selectable 12 or 24 VDC operation
- Standard features include adjustable time delay (ATD), door status monitor (DSM), and magnetic bond sensor (MBS)
- cUL and CSFM certified
- UL 10C listed for positive pressure fire tests of door assemblies: 3 hours
- Limited lifetime warranty on magnetic coil assembly

## Specifications

Holding force	500 lbs @ 12 VDC, 650 lbs @ 24 VDC
Input voltage	12/24 VDC
Current draw (Dual Voltage Field Selectable)	.23A@ 12 VDC .45A @ 24 VDC
Wiring	Wire leads 12" long
Lock body (L x H x D)	7" x 1 <sup>3</sup> / <sub>8</sub> " x 1 <sup>7</sup> / <sub>8</sub> "
Armature (L x H x D)	4 <sup>1</sup> / <sub>4</sub> " x 1 <sup>1</sup> / <sub>2</sub> " x 5 <sup>5</sup> / <sub>8</sub> "
Weight	6 lbs

**Note for wood frames:** Due to higher ambient operating temperatures, it is required that the 12 VDC configuration be used.

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# PS906

## 6 amp power supply

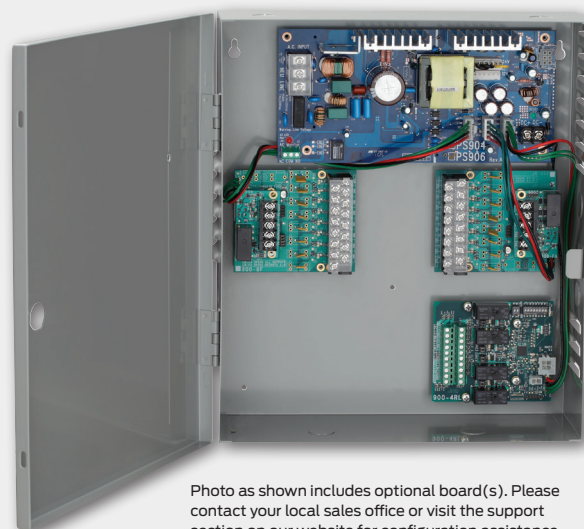


Photo as shown includes optional board(s). Please contact your local sales office or visit the support section on our website for configuration assistance.

## Overview

The Schlage comprehensive line of power supplies and option boards was designed to address the changing needs of the access control market.

Installation is simplified by utilizing a flat mounting design and polarized locking connectors for option boards. This design eliminates the need for racks and side connectors. The flat mounting of the option boards also provides for easier access to the terminal blocks for connection of electrified devices (such as electrified strikes, electromagnetic locks, card readers, etc.).

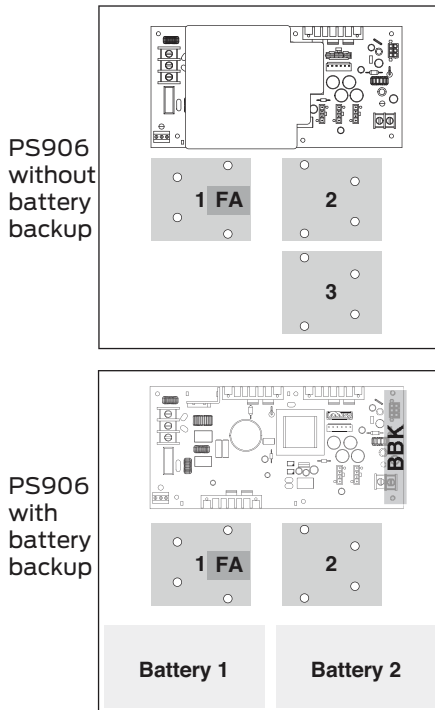
Common to the line of PS900 Series power supplies is a constant output rating at both 12v and 24v settings, universal 120 VAC to 240 VAC input, and polarized option board connectors. New fire alarm interface board mounting allows outputs to be configured as switched (power cut) or unswitched (power continues) when signal is provided.

## Features and benefits

- 6A @ 12/24 VDC constant output, field selectable with jumper
- Provides low-voltage, Class 1, filtered and regulated power (Class 2 when used with 900-8P option board)
- Universal 120-240 VAC, fused primary input
- Three polarized option board connectors eliminate need for racks and side connectors
- AC input and DC output monitoring circuit with LED indicators
- Externally visible AC input indicator with isolated SPDT contacts
- High-voltage protective cover for AC circuitry (not shown)
- Battery back-up board auto-selects voltage
- Optional Fire Alarm plug-in board available
- UL 294, ULC-S318, RoHS, and FCC Part 15 certified

## Configuration options

Available option board, fire alarm and battery backup connection locations:



### Exit device support

Von Duprin QEL	Up to 8 <sup>1</sup>
Von Duprin EL	None
Falcon EL	None

1. Requires the use of two 900-4RL option boards

## PS906 power supply specifications

Specification	Description
Input voltage	120/240 VAC, 50/60 Hz, universal input
Output voltage	6A @ 12 or 24 VDC Field selectable with jumper Switching supply, 5% regulation, 240mVpp max ripple
Enclosure	Grey/baked enamel 14"x 12"x 4" (H x W x D) Eight 1/2" x 3/4" knockouts NEMA Grade 1 Hinged cover with lock down screws
Operating temperature	32° - 120°F (0° - 49°C)
Certifications	ANSI/UL 294 ULC-S318 RoHS FCC Part 15 Class 1 (Class 2 when used with 900-8P option board)
Battery backup (install on main board)	900-BB: Battery backup board only 900-BBK: Battery backup kit (backup board plus battery pack)
Available option boards	900-FA: Plug-in fire alarm (must be installed on option board) 900-2RS*: 2 Relay option board capable of individual or sequential operation for single and pair door applications 900-4R*: 4 Relay option board 900-4RL*: 4 Relay option board with integrated logic and individual or sequential operation capability for controlling security interlocks, auto operators and time delay function 900-8F*: Fused, 8 zone option board 900-8P*: PTC, 8 zone option board
AC primary fuse size	6.3A, 250v, 5 x 20 mm
Battery fuse size	7.5A 32v ATO blade style
DC output protection	Overload protection - current limited foldback circuit
Indicators	LED indicators: - AC input (visible on outside of enclosure) - DC output Isolated SPDT contacts to monitor AC power status
Weight (power supply)	Approx. 9.0 lbs
Weight (each battery)	4.0 lbs
AC input termination	3 position terminal block with protective cover Wire capacity: 10 AWG max.
DC output termination	2 position terminal block Wire capacity: 12 AWG max.
Option board connectors	3
Fire alarm board connector	Yes (requires connection on option board)
Keylock	Optional
Accessories	900-BAT: Backup battery pack

\* Compatible with plug-in fire alarm board (900-FA)

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# PS904

## 4 amp power supply



Photo as shown includes optional board(s). Please contact your local sales office or visit the support section on our website for configuration assistance.

## Overview

The Schlage comprehensive line of power supplies and option boards was designed to address the changing needs of the access control market.

Installation is simplified by utilizing a flat mounting design and polarized locking connectors for option boards. This design eliminates the need for racks and side connectors. The flat mounting of the option boards also provides for easier access to the terminal blocks for connection of electrified devices (such as electrified strikes, electromagnetic locks, card readers, etc.).

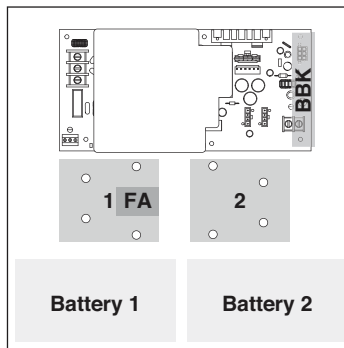
Common to the line of PS900 Series power supplies is a constant output rating at both 12v and 24v settings, universal 120 VAC to 240 VAC input, and polarized option board connectors. New fire alarm interface board mounting allows outputs to be configured as switched (power cut) or unswitched (power continues) when signal is provided.

## Features and benefits

- 4A @ 12/24 VDC constant output, field selectable with jumper
- Provides low-voltage, Class 2, filtered and regulated power
- Universal 120-240 VAC, fused primary input
- Two polarized option board connectors eliminate need for racks and side connectors
- AC input and DC output monitoring circuit with LED indicators
- Externally visible AC input indicator with isolated SPDT contacts
- High-voltage protective cover for AC circuitry (not shown)
- Battery back-up board auto-selects voltage
- Optional Fire Alarm plug-in board available
- UL 294, ULC-S318, RoHS, and FCC Part 15 certified

## Configuration options

Available option board, fire alarm and battery backup connection locations:



### Exit device support

Von Duprin QEL	Up to 4 <sup>1</sup>
Von Duprin EL	None
Falcon EL	None

1. Requires the use of one 900-4RL option board

## PS904 power supply specifications

Specification	Description
Input voltage	120/240 VAC, 50/60 Hz, universal input
Output voltage	4A @ 12 or 24 VDC Field selectable with jumper Switching supply, 5% regulation, 240mVpp max ripple
Enclosure	Grey/baked enamel 14" x 12" x 4" (H x W x D) Eight 1/2" x 3/4" knockouts NEMA Grade 1 Hinged cover with lock down screws
Operating temperature	32° - 120°F (0° - 49°C)
Certifications	ANSI/UL 294 ULC-S318 RoHS FCC Part 15 Class 2
Battery backup (install on main board)	900-BB: Battery backup board only 900-BBK: Battery backup kit (backup board plus battery pack)
Available option boards	900-FA: Plug-in fire alarm (must be installed on option boards) 900-2RS*: 2 Relay option board capable of individual or sequential operation for single and pair door applications 900-4R*: 4 Relay option board 900-4RL*: 4 Relay option board with integrated logic and individual or sequential operation capability for controlling security interlocks, auto operators and time delay function 900-8F*: Fused, 8 zone option board 900-8P*: PTC, 8 zone option board
AC primary fuse size	4A, 250v, 5 x 20mm
Battery fuse size	7.5A 32v ATO blade style
DC output protection	Overload protection - current limited foldback circuit
Indicators	LED indicators: - AC input (visible on outside of enclosure) - DC output Isolated SPDT contacts to monitor AC power status
Weight (power supply)	Approx. 9.0 lbs
Weight (each battery)	4.0 lbs
AC input termination	3 position terminal block with protective cover Wire capacity: 10 AWG max.
DC output termination	2 position terminal block Wire capacity: 12 AWG max.
Option board connectors	2
Fire alarm board connector	Yes (requires connection on option board)
Keylock	Optional
Accessories	900-BAT: Backup battery pack

\* Compatible with plug-in fire alarm board (900-FA)

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# PS902

## 2 amp power supply



Photo as shown includes optional board(s). Please contact your local sales office or visit the support section on our website for configuration assistance.

## Overview

The Schlage comprehensive line of power supplies and option boards was designed to address the changing needs of the access control market.

Installation is simplified by utilizing a flat mounting design and polarized locking connectors for option boards. This design eliminates the need for racks and side connectors. The flat mounting of the option boards also provides for easier access to the terminal blocks for connection of electrified devices (such as electrified strikes, electromagnetic locks, card readers, etc.).

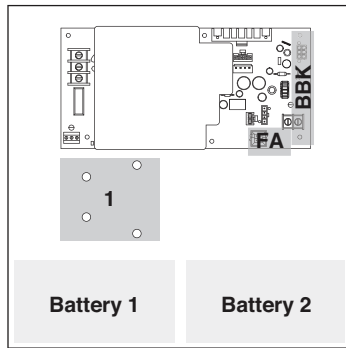
Common to the line of PS900 Series power supplies is a constant output rating at both 12v and 24v settings, universal 120 VAC to 240 VAC input, and polarized option board connectors. New fire alarm interface board mounting allows outputs to be configured as switched (power cut) or unswitched (power continues) when signal is provided.

## Features and benefits

- 2A @ 12/24 VDC constant output, field selectable with jumper
- Provides low-voltage, Class 2, filtered and regulated power
- Universal 120-240 VAC, fused primary input
- Single polarized option board connector
- AC input and DC output monitoring circuit with LED indicators
- Externally visible AC input indicator with isolated SPDT contacts
- High-voltage protective cover for AC circuitry (not shown)
- Battery back-up board auto-selects voltage
- Optional Fire Alarm plug-in board available
- UL 294, ULC-S318, RoHS, and FCC Part 15 certified

## Configuration options

Available option board, fire alarm and battery backup connection locations:



### Exit device support

Von Duprin QEL	Up to 2 <sup>1</sup>
Von Duprin EL	None
Falcon EL	None

1. Requires the use of one 900-2RS option board

## PS902 power supply specifications

Specification	Description
Input voltage	120/240 VAC, 50/60 Hz, universal input
Output voltage	2A @ 12 or 24 VDC Field selectable with jumper Switching supply, 5% regulation, 240mVpp max ripple
Enclosure	Grey/baked enamel 14" x 12" x 4" (H x W x D) Eight 1/2" x 3/4" knockouts NEMA Grade 1 Hinged cover with lock down screws
Operating temperature	32° - 120°F (0° - 49°C)
Certifications	ANSI/UL 294 ULC-S318 RoHS FCC Part 15 Class 2
Battery backup (install on main board)	900-BB: Battery backup board only 900-BBK: Battery backup kit (backup board plus battery pack)
Available option boards	900-FA: Plug-in fire alarm (install on main or option board) 900-2RS: 2 Relay option board capable of individual or sequential operation for single and pair door applications 900-4R: 4 Relay option board 900-4RL: 4 Relay option board with integrated logic and individual or sequential operation capability for controlling security interlocks, auto operators, and time delay function 900-8F: Fused, 8 zone option board 900-8P: PTC, 8 zone option board
AC primary fuse size	3.15A, 250v, 5 x 20mm
Battery fuse size	7.5A 32v ATO blade style
DC output protection	Overload protection - current limited foldback circuit
Indicators	LED indicators: - AC input (visible on outside of enclosure) - DC output Isolated SPDT contacts to monitor AC power status
Weight (power supply)	Approx. 9.0 lbs
Weight (each battery)	4.0 lbs
AC input termination	3 position terminal block with protective cover Wire capacity: 10 AWG max.
DC output termination	2 position terminal block Wire capacity: 12 AWG max.
Option board connectors	1
Fire alarm board connector	Yes
Keylock	Optional
Accessories	900-BAT: Backup battery pack

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**VON DUPRIN®**

**PS914**

4 amp high in rush  
power supply

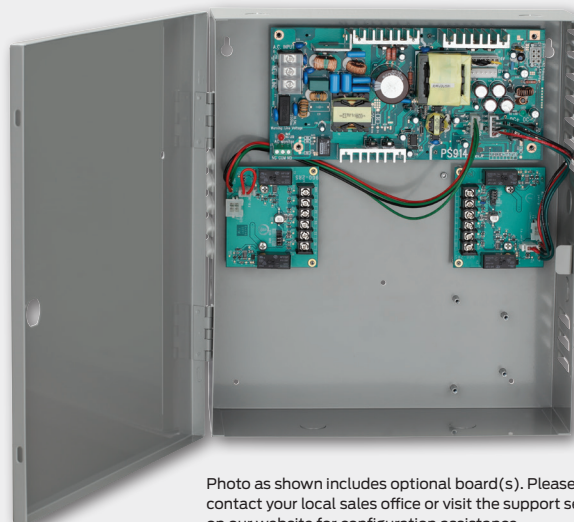


Photo as shown includes optional board(s). Please contact your local sales office or visit the support section on our website for configuration assistance.

## Overview

Von Duprin power supply and option board products were designed to meet the specific requirements of electrified fire exit devices.

Installation is simplified by utilizing a flat mounting design and polarized locking connectors for option boards. This design eliminates the need for racks and side connectors. The flat mounting of the option boards also provides for easier access to the terminal blocks for connection of electrified devices (such as electrified panic devices, strikes, card readers, etc.).

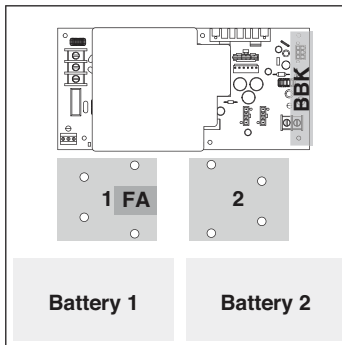
Common to the line of PS900 Series power supplies is a constant output rating at both 12v and 24v settings, universal 120 VAC to 240 VAC input, and polarized option board connectors. New fire alarm interface board mounting allows outputs to be configured as switched (power cut) or unswitched (power continues) when signal is provided.

## Features and benefits

- 4A @ 12/24 VDC constant output, field selectable with jumper
- Designed for use with electrified panic devices requiring high in rush current
- Provides low-voltage, Class 2, filtered and regulated power
- Universal 120-240 VAC, fused primary input
- Two polarized option board connectors
- AC input and DC output monitoring circuit with LED indicators
- Externally visible AC input indicator with isolated SPDT contacts
- High-voltage protective cover for AC circuitry (not shown)
- Battery back-up board auto-selects voltage
- Optional Fire Alarm plug-in board available
- UL 294, ULC-S318, RoHS, and FCC Part 15 certified

## Configuration options

Available option board, fire alarm and battery backup connection locations:



### Exit device support

Von Duprin QEL	Up to 8 <sup>1</sup>
Von Duprin EL	Up to 8 <sup>1,2</sup>
Falcon EL	Up to 8 <sup>1,2</sup>

1. Requires the use of two 900-4RL option boards

2. Distance from power supply may be limited with multiple EL applications - consult technical support for wire run lengths

## PS914 power supply specifications

Specification	Description
Input voltage	120/240 VAC, 50/60 Hz, universal input
Output voltage	4A @ 12 or 24 VDC Field selectable with jumper Switching supply, 5% regulation, 360mVpp max ripple
Enclosure	Grey/baked enamel 14" x 12" x 4" (H x W x D) Eight 1/2" x 3/4" knockouts Hinged cover with lock down screws
Operating temperature	32° - 120°F (0° - 49°C)
Certifications	ANSI/UL 294 ULC-S318 RoHS FCC Part 15 Class 2
Battery backup (install on main board)	900-BB: Battery backup board only 900-BBK: Battery backup kit (backup board plus battery pack)
Available option boards	900-FA: Plug-in fire alarm (must be installed on option board) 900-2RS*: 2 Relay option board capable of individual or sequential operation for single and pair door applications 900-4R*: 4 Relay option board 900-4RL*: 4 Relay option board with integrated logic and individual or sequential operation capability for controlling security interlocks, auto operators and time delay function 900-8F*: Fused, 8 zone option board 900-8P*: PTC, 8 zone option board
AC primary fuse size	6.3A, 250v, 5 x 20mm
Battery fuse size	7.5A 32v ATO blade style
DC output protection	Overload protection - current limited foldback circuit
Indicators	LED indicators: - AC input (visible on outside of enclosure) - DC output Isolated SPDT contacts to monitor AC power status
Weight (power supply)	Approx. 9.0 lbs
Weight (each battery)	4.0 lbs
AC input termination	3 position terminal block with protective cover Wire capacity: 10 AWG max.
DC output termination	2 position terminal block Wire capacity: 12 AWG max.
Option board connectors	2
Fire alarm board connector	Yes (requires connection on option board)
Keylock	Optional
Accessories	900-BAT: Backup battery pack

\* Compatible with plug-in fire alarm board (900-FA)

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## 620/631 Series

### Heavy-duty pushbuttons



### Overview

Schlage pushbuttons are used to control the ingress and/or egress of a door. The 620 and 631 Series pushbuttons are easy to install and operate. Their standard and narrow stile plates offer ultimate flexibility. The 620 to 631 Series have multiple button configuration and finish options provide enhanced architectural appeal.

Schlage 620 and 631 Series pushbuttons also offer significant installer-friendly innovations such as screw terminal connections for the momentary action models and easy-to-install L2/ILL optional PC board, offering backlit illumination for the cone with green, yellow and red LEDs. Additional options include maintained or delayed action, double pole double throw switches, narrow stile faceplates and heavy-duty faceplates with several architectural finishes.

### Features and benefits

- 620 Series offered in 5 button colors
- "PUSH TO EXIT" message and handicap symbol choices provide obvious action indication
- Glow-in-the-dark and LED backlit button options
- Momentary action is standard; factory orderable with delayed (0-60 second) or alternate action
- Double pole, double throw optional (not available with delayed action)
- Standard, heavy-duty single gang faceplate or narrow stile option
- 1<sup>1</sup>/<sub>4</sub>" inset, 1<sup>5</sup>/<sub>8</sub>" mushroom and 2<sup>3</sup>/<sub>4</sub>" large mushroom buttons
- 630 satin stainless steel standard plus 6 other finish options
- Extreme duty 631 models come standard in cast zinc with 626 satin chrome finish



## Ordering information

621-GID-DA-SF-626

Selections correspond with the numbers to the left

Model	Button	Options	Finish
1	2	3	4

1	Model
621	1 1/4" Button, single gang
623	1 5/8" Mushroom button, single gang
625	2 3/4" Mushroom button, single gang
631	1 1/4" Metal button, single gang
2	Button
GID-EX	Glow-in-the-dark "PUSH TO EXIT"
GID	Glow-in-the-dark
RD-EX	Red, "PUSH TO EXIT"
RD	Red
GR-EX	Green, "PUSH TO EXIT"
GR	Green
BL-H	Blue, handicapped symbol
BK	Black
AL-EX-RD	Aluminum button red coated, engraved "PUSH TO EXIT"
AL-EX	Aluminum button, engraved "PUSH TO EXIT"
AL	Aluminum button

3	Options
DA	Delayed action (0-60 seconds)
AA	Alternate action - maintained
DP	Double pole double throw (not available with DA option)
L2/ILL	3 LEDs - green/yellow/red concealed within opaque cone (not available for 625/625-NS models)
NS	Narrow stile faceplate (1 3/4" x 4 1/2")
4	Finish
630	Satin stainless steel (standard) on .035 steel
SF-626	Satin chrome (standard on 631 models)
SF-613	Oil satin bronze
SF-625	Bright chrome

Note: Non-standard finishes on heavy-duty plate (HDP) 1/4" thick cast zinc

### Button configurations

	GID-EX	GID-H	GID	RD-EX	RD	GR-EX	GR	BL-H	BK
621		-							
623		-							
625	-	-	-						
	AL-EX	AL	AL-RD-EX						
621									
	AL-EX	AL	AL-RD-EX						
631									

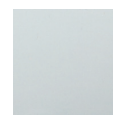
### Optional Finishes



SF-626  
Satin chrome  
(standard on  
631 models)



SF-613  
Oil rubbed bronze



SF-625  
Bright chrome

### Multiple button configuration

621 1 1/4" Button



623 1 5/8" Mushroom button



625 2 3/4" Mushroom button



631 Extreme-duty 1 1/4" Metal button



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## 700 Series Pushbuttons



### Overview

Schlage pushbuttons are used to control the ingress or egress of a door. The 700 Series pushbuttons are easy to install.

Schlage 700 Series entry level pushbuttons are designed to meet commercial applications. Use with indoor swinging or sliding doors that are electrically or electronically locked. 700 Series entry level pushbuttons are available for single gang and narrow stile applications. The 709 model includes backlit buttons with "PUSH TO EXIT" or handicap symbol to meet ADA requirements.

### Features and benefits

- Illuminated 2" square large button options or 5/8" and 7/8" round button options
- Optional dual LED status indicators in green and red
- For indoor use
- Momentary switch standard or factory orderable with maintained (alternate action) switch
- Handicapped symbol option
- Single gang or narrow stile faceplate cover options
- Satin stainless steel finish

## 700 specifications

### 701 Pushbutton

Contact ratings	3A @ 30VAC/UDC, momentary SPDT contacts
Wire leads	20 awg – 6" long

### 709 Pushbutton

Contact ratings	3A @ 30VAC/UDC, momentary SPDT contacts
Wire leads	20 awg – 8" long

### Input requirements with LED option

Voltage	12/24 VDC
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Current draw	30 mA
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Wire leads	24 awg – 6" long
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### Input requirements with ILL option

Voltage	12 VDC for 709 series only 24 VDC for 701/709 series
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## Ordering information

- **701RD** - 7/8" Red mushroom button
- **701BK** - 7/8" Black mushroom button
- **701RD EX** - 5/8" Red button - engraved "PUSH TO EXIT"
- **701RD EX ILL** - 5/8" Red button – illuminated "PUSH TO EXIT"
- **709RD EX ILL** - 2" Red square - illuminated "PUSH TO EXIT"
- **709GR EX ILL** - 2" Green square – illuminated "PUSH TO EXIT"
- **709BLH ILL** - 2" Blue square – illuminated handicapped symbol

### Options

- **L2** - Two LEDs, red and green, dual voltage for status indication
- **AA** - Alternate action – maintained (701 series only)
- **NS** - Narrow stile plate (701 series only)

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## 740 Series

Emergency break glass releases



### Overview

Schlage 740 Series emergency break glass releases are designed for use as emergency releases of non-designated egress doors such as in individual and partitioned laboratories, secluded testing areas or other isolated work rooms that are purposely provided with exit doors. In perimeter protection systems that involve the central control of electric locking devices, an on-site emergency release may be required. The “break glass” concept may be preferred over the pull station, because it is less vulnerable to misuse or tamper actuation.

The 740 Series emergency break glass units consist of a replacement break glass cartridge that normally holds the plunger-activated switch depressed until the cartridge lens is broken. When the lens is broken, the plunger moves forward and alters the switch contact position. Four replacement lens disks are provided with each assembly. The small hammer is attached to the break glass assembly via a mounting clip, along with a 12" chain, to insure it will not detach from the assembly.

### Features and benefits

- Surface mount in a standard 3-gang enclosure
- Compatible with all fail-safe type electronic locking systems
- An effective alternative to the standard pull box
- Stainless steel standard finish
- Models with LED or audible alarm
- Clearly marked signage indicating purpose of the release
- Includes 4 replacement lens disks

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## 740 specifications

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Contact rating	6A @ 30 VDC Form Z switch
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## Ordering information

- **740** – Includes break glass switch assembly and hammer mounted to a silk-screened 3-gang stainless switch plate
- **741** – Includes an attached indicator light with red lens
- **742** – Includes a Sonalert horn operating at 80 dB @ 2 feet

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## 660 Series

Mini station control



### Overview

The 660 Series mini station control is designed for concealed desk application, and it is used to release an electric or electronic locking mechanism from a remote location. The 660 Series mini station control is mounted in a mini aluminum box, 2" x 2" x 1". The 660 is available with a momentary action pushbutton or maintained action toggle switch. Both can be surface mounted. A typical application is under a desk to release an entrance door.

### Features and benefits

- Surface mount application
- Choice of maintained or momentary action
- Compact size
- Recommended for concealed desk application

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## Specifications

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Switch contact rating	6 amp @ 120 VAC
Length	2"
Width	2"
Height	1"

---

## Ordering information

- **660-T4** - SPDT maintained toggle
- **660-PB** - PB SP momentary pushbutton

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# 650 Series

## Keyswitches



### Overview

Schlage 650 Series keyswitches utilize an innovative magnetic spring design which allows installers to configure both clockwise and counterclockwise key turn direction as well as momentary or maintained action in seconds. Single gang and narrow stiles are available with numerous options which include heavy-duty plate, weather resistant cover (single gang size only), 2 LED lights – green/red, anti-tamper switch and Schlage Everest cylinder. In addition to the standard (630) satin stainless steel finish, there are five additional architectural finishes to choose from.

### Features and benefits

- Easy to install and maintain
- Single gang and narrow stile offer ultimate flexibility
- Multiple options
- Patented magnetic spring design allows installers to configure momentary to maintained action in seconds
- Available options include red/green LED lights, anti-tamper switch and Schlage Everest cylinder
- Available water-resistant cover
- Single pole, double throw or double pole, double throw in both maintained and momentary action with a variety of combinations
- Standard 630 satin stainless steel plate with 5 additional finish options on heavy-duty zinc plate
- Standard or narrow stile cover options

# Specifications

Innovative magnetic spring technology allows installers to configure models in seconds

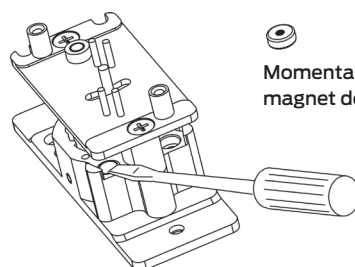
## Standard keyswitch

- 5 amp @ 30 VDC
- SPDT contacts

**ATS** switch closes when cover is on 0.025A@28VDC

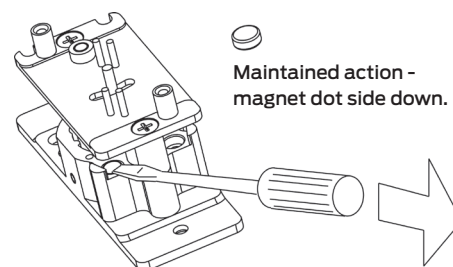
**LED** indicator lights operate at 12/24 VDC 0.500A @ 30VDC

## Momentary action



Momentary action -  
magnet dot side up.

## Maintained action



Maintained action -  
magnet dot side down.

# Ordering information

- **653-04** - SPDT maintained single direction
- **653-05** - SPDT momentary single direction
- **653-14** - DPDT maintained single direction
- **653-15** - DPDT momentary single direction
- **653-1414** - (2) DPDT maintained bi-direction
- **653-1415** - DPDT maintained x DPDT momentary
- **653-1515** - (2) DPDT momentary bi-direction
- **653-041** - SPDT maintained x key remove one position
- **653-0404** - (2) SPDT maintained bi-direction
- **653-0405** - SPDT maintained x SPDT momentary
- **653-141** - DPDT maintained x key remove one position
- **653-0505** - (2) SPDT momentary bi-direction

## Options

- **L2** - Two LEDs (red/green), dual voltage
- **NS** - Narrow stile - stainless steel plate (1 3/4" x 4 1/2")
- **ATS** - Anti-tamper switch
- **WP** - Weather-resistant cover fits 1 1/8" cylinder only (not available with NS and L2 options)
- **CYL** - 1 1/4" Schlage Everest® mortise cylinder and 1/8" spacer ring (keyed different)
- **CYL-KA** - 1 1/4" Schlage Everest mortise cylinder and 1/8" spacer ring (keyed alike)

## Finishes

- **630** - Satin finish on .035 stainless steel (standard)
- **SF-626** - Satin chrome on heavy-duty zinc
- **SF-605** - Bright brass on heavy-duty zinc
- **SF-612** - Satin bronze on heavy-duty zinc
- **SF-613** - Oil satin bronze on heavy-duty zinc
- **SF-625** - Bright chrome on heavy-duty zinc

Note: 650 Series keyswitches operate with either a 1 1/8", 1 1/4", 1 3/8", or 1 1/2" cylinder having a straight type cam.

- 1 1/8" mortise cylinder fits direct in key switch - no blocking ring required.
- 1 1/4" cylinders require a 1/8" blocking/spacer ring, Schlage part number 36-079-012 or equivalent (included with the CYL and CYL-KA options).
- 1 3/8" mortise cylinder housing for SFIC cores - requires 3/8" blocking ring Schlage part number 36-079-025 or equivalent.
- 1 1/2" mortise cylinder housing for FSIC cores - requires 3/8" blocking ring Schlage part number 36-079-037 or equivalent.

All cylinders, except 1 1/4" as CYL or CYL-KA options, must be ordered separately.

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## 672 Series

### TouchBar



### Overview

The 672 TouchBar is a request-to-exit device which releases electronic locking devices, most commonly electromagnetic locks when the bar is depressed. The "PUSH TO EXIT" signage provides an obvious exit indication for building occupants and the simplified design allows for reversing the signage in the field. The new pivoting bar design allows 1/4" activation and the 2 1/4" low profile provides ample clearance through the door - notably less than others in the industry.

The 672 TouchBar request-to-exit device is easy to install and simple to wire. The device's rugged cast ramped end caps deflect blows and provide extra durability.

- 1/4" Movement activates immediate release
- Standard Double Pole, Double Throw switch utilized

### Features and benefits

- 1/4" movement of bar activates immediate release
- Large "PUSH TO EXIT" lettering provides obvious exit indication with glow-in-the-dark option
- Low profile provides ample clearance through the door
- Releases electromagnetic or electrified locks when bar is depressed
- Left- or right-hand reverse (field reversible)
- Field sized or orderable for 36", 42" or 48" doors
- For aluminum, hollow metal and wood doors
- Pivoting bar design allows 1/4" activation
- Heavy-duty aluminum extrusion with powder coat cast metal end caps for maximum durability
- Quick installation brackets/universal mounting system

---

## 672 TouchBar electrical specifications

---

Input voltage	12 or 24 VDC maximum current draw .25 amps
Switch	DPDT contacts rated 4 amps @ 30 VDC
Wiring	6 conductor cable - 20 AWG (standard)

---

## Ordering information

### Models

- **672 RD** - Black with red "PUSH TO EXIT"
- **672 GID** - Black with glow in the dark "PUSH TO EXIT"

### Door size

- 36", 42" or 48"

### Finishes

- **628** - Satin anodized aluminum (standard)
- **313** - Dark satin bronze anodized aluminum

### Handing

- **RHR** - Right hand reverse
- **LHR** - Left hand reverse -field reversible

### Options

- **WD** - Sexnut door kit for heavy-duty wood door and hollow metal door applications
- **AR** - 18" x 1/2" armored door cord (less wire)
- **SHK** - Aluminum door mounting shim kit includes brackets, shims and screws for narrow stile aluminum doors.\*

\* Note: Screw pack has self-drilling and self-tapping screws for aluminum and wood door applications and rivnuts for hollow metal door applications.

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## 692 Series

SmartBar™



### Overview

The 692 SmartBar is an electronic switching device with no moving parts, which serves as a non-latching request-to-exit device. It allows one motion egress at doors equipped with an electronic locking device, most commonly an electromagnetic lock, with “no prior knowledge” required by the user. Touching the SmartBar at any point on the bar activates internal circuitry which controls power to the locking device. No moving parts results in low maintenance and long life.

The 692 SmartBar provides two directionally opposed infrared detection circuits to sense an exit request. As a person touches the bar, the light beam is broken. The patent-pending redundant system provides a high level of life safety and peace of mind to the end user.

An audible alarm is standard. This feature provides a security alarm to alert when there is a prolonged unlocked condition caused by a continued break in the light beam. This feature is desirable in applications requiring monitoring of security conditions or delayed egress.

- Dual Infrared detection circuits, patent-pending
- No moving parts – one motion egress
- Audible alarm standard, alerts prolonged unlock condition
- Standard Double Pole, Double Throw switch utilized

### Features and benefits

- Patent-pending infrared detection along bar releases locking device when light beam is broken
- One motion egress when installed with electromagnetic or electrified locks
- Large “PUSH TO EXIT” lettering provides obvious exit indication with glow-in-the-dark option
- Low profile provides ample clearance through the door
- Audible alarm is standard
- Left- or right-hand reverse (field reversible)
- Field sized or orderable for 36”, 42” or 48” doors
- For aluminum, hollow metal and wood doors
- No moving parts for low maintenance and long life
- Heavy-duty aluminum extrusion with cast metal end caps for maximum durability
- Quick installation brackets/universal mounting system

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## 692 SmartBar electrical specifications

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Input voltage	12 or 24 VDC maximum current draw .5 amps
Switch	DPDT contacts rated 4 amps @ 30 VDC
Wiring	8 conductor cable - 20 AWG (standard)

---

## Ordering information

### Models

- **692 RD** - Black with red "PUSH TO EXIT"
- **692 GID** - Black with glow in the dark "PUSH TO EXIT"

### Door size

- 36", 42" or 48"

### Finishes

- **628** - Satin anodized aluminum (standard)
- **313** - Dark satin bronze anodized aluminum

### Handing

- **RHR** - Right hand reverse
- **LHR** - Left hand reverse - field reversible

### Options

- **WD** - Sexnut door kit for heavy-duty wood door and hollow metal door applications
- **SHK** - Aluminum door mounting shim kit includes brackets, shims and screws for narrow stile aluminum doors.\*

\* Screw pack has self-drilling and self-tapping screws for aluminum and wood door applications and rivnuts for hollow metal door applications.

Note: 18" x 1/2" armored door cord shipped standard.

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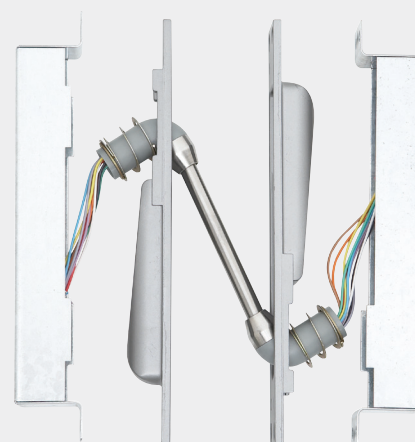
**VON DUPRIN®**

## Electrical power transfer

### Overview

Electric power transfer provides a means of transferring electrical power from a door frame to the edge of a swinging door. The units are completely concealed when the door is in the closed position, and are ideally suited for installations involving abuse or heavy traffic.

Two models are available; EPT-2, two 18 gauge wires and EPT-10, ten 24 gauge wires.



### Features and benefits

- UL Listed for use on fire doors
- UL listed as Miscellaneous Door Accessory
- Ball-and-socket joint construction provides cut and pinch protection for wiring
- Built for heavy traffic and high abuse openings

## Door applications

- Up to 5" butt hinges – 180° swing.
- 5 1/2" butt hinges – 130° swing.
- 6" butt hinges – 110° swing.
- 3/4" offset pivots – 180° swing.

Not for use with swing clear hinges, center-hung pivots, pocket pivots or balanced doors.

Door applications shown are for 1 3/4" door thickness, for all other applications contact Technical Support to confirm compatibility.

## Finishes

- SP28 (sprayed aluminum)
- SP313 (sprayed duranodic)

### Dimensions

Housing	9" X 1 1/4" X 1 5/8" (229mm X 32mm X 38mm)
EPT-2	Two 18 gauge wires, up to 2 AMPS @ 24VDC, with a 16 AMPS maximum surge
EPT-10	Ten 24 gauge wires, up to 1 AMPS @ 24VDC, with a 16 AMPS maximum surge
PNT-1	5/32" tubing

### To order, specify

- **EPT-2, EPT-10 or PNT-1.**
- **Finish, SP28 or SP313.**

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**IVES®**

## Electrified hinges

### Overview

Ives offers electrified 3 knuckle and 5 knuckle hinges that transfer power and signals from the frame to the door. Electrified hinges hide wiring from view to provide a more pleasing aesthetic and a more secure application.



### Features and benefits

- Electrified hinge available in 3 and 5 knuckle
- High quality brass ferrules and plastic tubing protect the wires
- Through-wire hinges cycle tested to ensure durability
- UL Listed - UL634
- Meets ANSI/BHMA A156.1

## Available options

- **Through-wire** – TW4 (4 wires) and TWB (8 wires)
- **Monitor** – MON
- **Through-wire with monitor** – TW4M and TW8M
- **Allegion Connect** – CON

Through-wire is rated for 50 volts AC/DC at 3.5 AMP continuous and 16 AMP pulse, maximum pulse 400 mili second.

Monitor rated 30VDC at .5 AMP.

### Finishes

#### Brass

Ives finish	US3	US4	US10	US10B	US10A	US11	US15	US26	US26D
BHMA	605	606	612	613	614	616	619	625	626

#### Steel

Ives finish	USP	US3	US4	US10	US10B	US10A	US11	US15	US26	US26D
BHMA	600	632	633	639	640	641	643	646	651	652

#### Stainless steel

Ives finish	US32	US32D
BHMA	629	630

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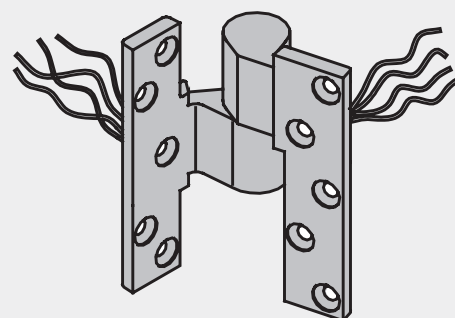


**IVES®**

## Power transfer pivot

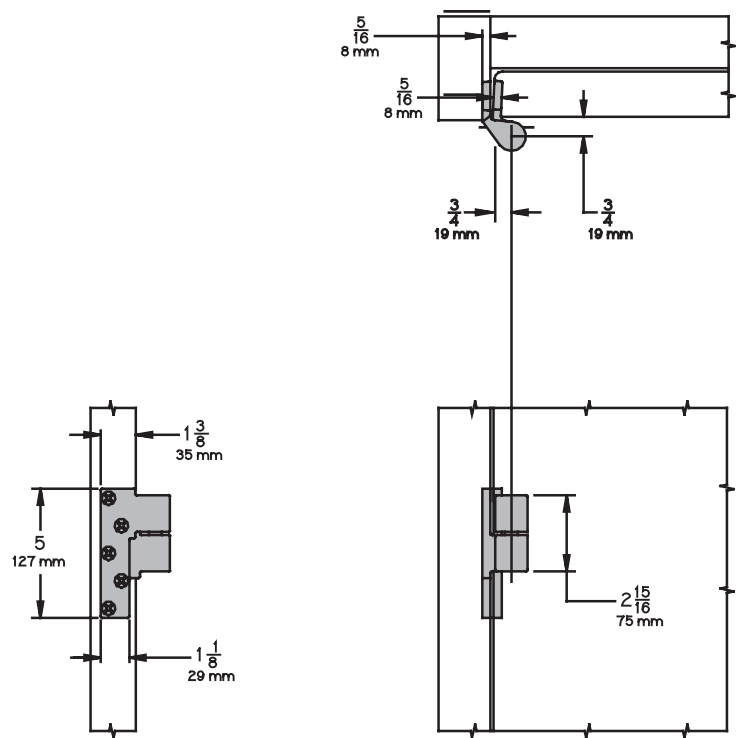
### Overview

Ives offers electrified intermediate power transfer pivots to transfer power and signals from the frame to the door. Pivots are generally used on heavier exterior door applications.



### Features and benefits

- Use with 7215, 7226 or 7227 3/4" offset pivots
- Four wires, 28 gauge
- Optional 8 wire available
- Rated 50 VDC or VAC @ 3.5 amps
- Continuous or 16 amps pulse, maximum pulse 400 milliseconds
- Non-load bearing
- Use with 1 3/4" thick door minimum, 1/8" bevel in 2"



## Finishes

### Plate finishes - brass

US number	US3	US4	US10	US10B	US26	US26D
BHMA	605	606	612	613	625	626

### Painted finishes - brass

US number	SP4	SP10	SP28	SP313	SPBLK
BHMA	706	691	689	695	622

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## 788/798 Series Armored door cords

### Overview

Used when installing electric exit devices or electrified locks, armored door cords provide a simple and economical solution for transferring power from frame to door. Schlage flexible door cords are offered in two lengths each with options for less wires or including four, 20 gauge conductor wires (red, green, white and black).



# Specifications

## Acceptable wire size combinations

- Five 18 gauge
- Two 18 gauge and four 20 gauge
- Two 18 gauge and seven 22 gauge
- Seven 20 gauge
- Twelve 22 gauge

## $\frac{5}{16}$ " interior diameter; $\frac{3}{8}$ " outside diameter flexible door cord

- **788-12** - 12" x  $\frac{3}{8}$ " less wires (inswinging)
- **788C-12** - 12" x  $\frac{3}{8}$ " with four 20 gauge, 20" long conductor wires (red, green, white, black)
- **788-18** - 18" x  $\frac{3}{8}$ " less wires (outswinging)
- **788C-18** - 18" x  $\frac{3}{8}$ " with four 20 gauge, 26" long conductor wires (red, green, white, black)

## $\frac{3}{8}$ " interior diameter; $\frac{1}{2}$ " outside diameter flexible door cord

### Acceptable wire size combinations

- **798-12** - 12" x  $\frac{1}{2}$ " less wires (inswinging)
- **798C-12** - 12" x  $\frac{1}{2}$ " with four 20 gauge, 20" long conductor wires (red, green, white, black)
- **798-18** - 18" x  $\frac{1}{2}$ " less wires (outswinging)
- **798C-18** - 18" x  $\frac{1}{2}$ " with four 20 gauge, 26" long conductor wires (red, green, white, black)

## Certification:

- **UL 10 C**

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## 800/801 Series

Remote and local  
monitoring stations



### 800 Series

#### Local and remote monitoring station

The 800 Series monitoring stations can provide monitoring for a single zone with choice of audible or visual monitoring.

### 801 Series

#### Local and remote monitoring station

The 801 unit includes an audible and visual indication of lock status and delay activation. Interfaces with electromagnetic locks with magnetic bond sensor (MBS) option. Unit mounts in a standard single gang electrical box.

The 801-KS fulfills a code requirement stating that a local signal assures users that a delayed egress system is functional. The unit includes an audible and visual indication of lock status and delay activation. Provides a Single Pole, Double Throw (SPDT) momentary x SPDT maintained contact arrangement keyswitch for legal release and reset of the system, which interfaces with a standard 1 1/4" mortise cylinder with standard straight cam. Option to interface with electromagnetic locks with Magnetic Bond Sensor (MBS). Unit mounts in a standard double gang electrical box.

### Features and benefits

- 800 Series local and remote monitoring stations
  - 800L1 with one LED indicator (red, green or amber)
  - 800L2 with two LED indicators (red, green or amber) (photo)
  - 800A horn monitor, 70 dB @ 2 ft
- 801 Series local and remote monitoring stations
  - 801 with three LED indicators and horn monitor, 70 dB @ 2 ft
  - 801KS with LED indicators, horn monitor and keyswitch (photo)

## 800 specifications

LED Operating power	12-24 VDC
LED current draw	30 mA ea.
Audible input	10-28 VDC
Audible current draw	3-14 mA
Decibel rating	70 dB @ 2 ft
Single gang unit	
Width	2 3/4"
Depth	1 1/2"
Height	4 1/2"
Finish	Stainless steel
800L1	One (1) LED Indicator - red, green, and amber
800L2	Two (2) LED Indicators - red, green, and amber
800A	Audible sounder

## 801 specifications

LED Operating power	12-24 VDC
LED current draw	30 mA ea.
Audible input	10-28 VDC
Audible current draw	3-14 mA
Decibel rating:	70 dB @ 2 ft
Single gang unit	
801* Local or remote monitoring system	
Width	2 3/4"
Depth	1 1/2"
Height	4 1/2"
Finish	Stainless steel
Double gang unit	
801-KS* local or remote monitoring system with keyswitch (less cylinder)	
Width	4 9/16"
Depth	1 15/16"
Height	4 1/2"
Finish	Stainless steel
Keyswitch contacts	5 Amp @ 30 VDC

\*Note: 801/801-KS requires MBS on locking device.

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# 8200 Series

## Consoles



## Overview

Schlage 8200 Series desk consoles provide door control and monitoring for up to eight zones. Designed to meet a wide range of security requirements, the 8200 Series can control and monitor electric strikes, electromagnetic locks, electromechanical exit devices or other electric locks. The console can also be used for surveillance of monitoring devices.

The circuit boards inside the console are shipped for four or eight zone applications. This design allows for momentary or maintained switch operation. Pushbuttons control and monitor assigned zones, and a signaling horn provides an audible alert of any conditions change that is associated with the red indicator lamp. Console control can be disabled with the security keyswitch.

## Features and benefits

- Slope front design, with anodized face plate and durable housing
- Each station provides maintained or momentary Single Pole, Double Throw (SPDT) pushbutton switch
- Red and green indicator lamps
- Security keyswitch
- Signaling horn
- Alarm reset button
- 24 VDC operation

## System design guide

There are a number of applications where an 8200 Series Console is used to monitor and control multiple door openings. It is ideal for use at a guard or nurse station. (An example of a riser diagram for a two door nurse's station console is shown below.)

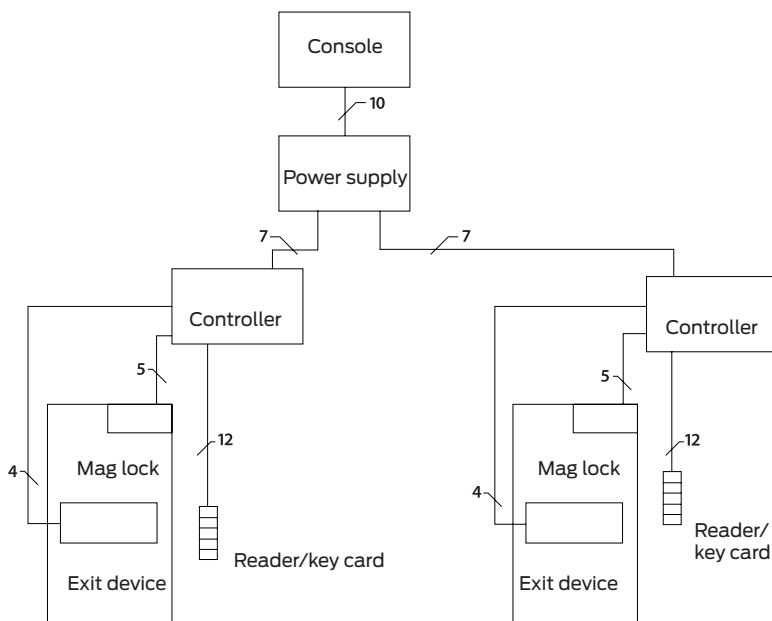
## Description of system operation

Two single doors, each normally closed and secured by a magnetic lock. Magnetic lock to include Magnetic Bond Sensor (MBS) for remote monitoring of secure/not-secure condition. Legal access to be provided by keypad system. Egress to be provided by touch sensitive exit bars. Remote control and monitoring to be by a slope front desktop console. Each of two stations shall provide a momentary pushbutton switch for legal release, a red indicator for "not-secure" condition and a green indicator for "secure" condition.

## Specifications

Switches (momentary or maintained)	1.0 amps 24 VDC
Lamps #85 red/green	40 mA @24 VDC
Terminal block	18/22 gauge wire
Alarm output	0.5 amps @ 24 VDC (breaker protected)
Temperature range	32° to 120°F (0° to 49°C)
Input voltage	24 VDC, +/- 15%

## Riser diagram



## Ordering information

Last digit indicates number of zones

**4 station console**  
**8204**

**8 station console**  
**8208**

### Pushbutton function

- Select pushbutton function by zone.
- Select M (momentary) or A (alternate action, maintain) for each zone.

	1	2	3	4	5	6	7	8
▪ 8204	-	-	-	-	-	-	-	-
▪ 8208	-	-	-	-	-	-	-	-

### Accessories

Field installable push buttons

- 8200MS – Momentary switch assembly
- 8200 MA – Alternate action (maintained) switch assembly

## About Allegion

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## Scan II™

Passive infrared  
motion sensors



### Overview

The Scan II™ is a compact, passive infrared detector specifically designed for “request-to-exit” applications. It features adjustable relay latch time, an externally visible activation LED, and two form “C” relays.

The high-impact ABS plastic enclosure in black or white comes apart in 3 pieces for easy mounting and lock-in-place scanner angle adjustment. Internal angle setting marks aide optimal coverage configuration for both wall and ceiling mounting. Mounting height is 7 to 15 feet allowing coverage area of the Scan II sensor of up to 8 by 10 ft (2.4 m by 3 m).

### Features and benefits

- Adjustable relay latch time from 0.5 to 64 seconds
- Field-selectable fail safe/fail secure
- Included pattern masking kit snaps in place to narrow scan field and help prevent unwanted activations
- Activation LED is visible at a distance and can be configured to OFF as needed
- Intended for indoor use only
- Wall or ceiling mounted with lock-in-place angle adjustment
- UL294 and ULC-S319, Class 1 listed by manufacturer
- High-impact ABS plastic enclosure and internal electronics can endure temperatures of -20° to 120°F
- Inconspicuous unit is only 1.5" x 6.25" x 1.5" in either black or white

# Specifications

## Models

- Scan II-B: black with externally visible activation LED
- Scan II-W: white with externally visible activation LED

## Power requirements

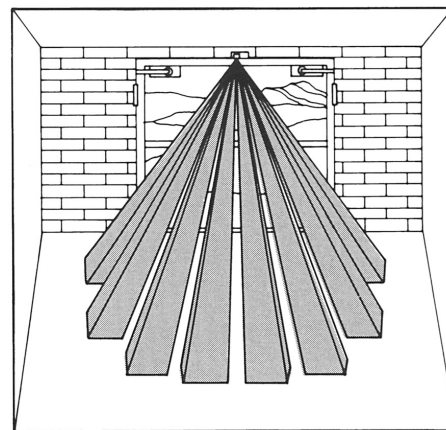
- 12/24 VDC: 35 mA @ 12 VDC; 38 mA @ 24 VDC when activated
- 12/24 VAC: 42 mA @ 12 VAC; 48 mA @ 24 VAC when activated
- 38 mAh required for standby operation (no internal standby battery)

## Relay

- Two form "C" relay contacts rated 2.0 Amp @ 30 VDC or VAC maximum for DC resistive loads

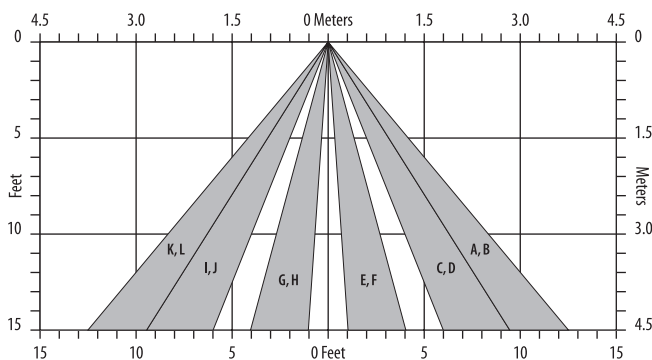
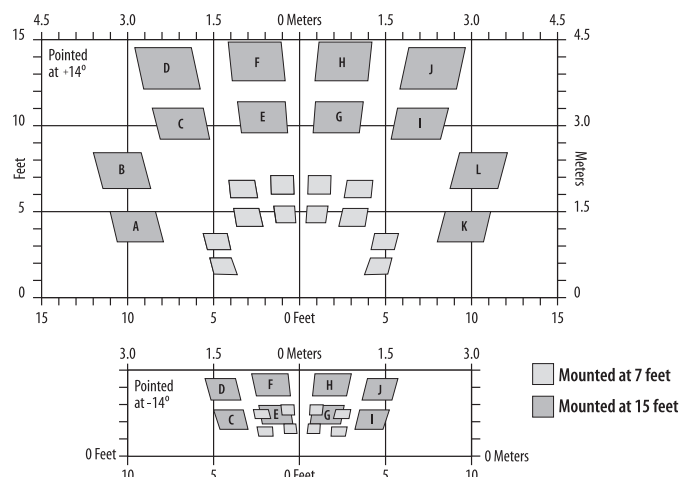
## Installation options

- Adjustable relay latch time from 0.5 to 64 seconds
- Relay mode can be programmed to reset when timer expires or remain activated until motion stops
- Field-selectable fail safe/fail secure
- Mounting height of 7 to 15 feet (indoors only)
- Lock-in-place pattern adjustment is  $\pm 14^\circ$  with separate settings for wall vs. ceiling application

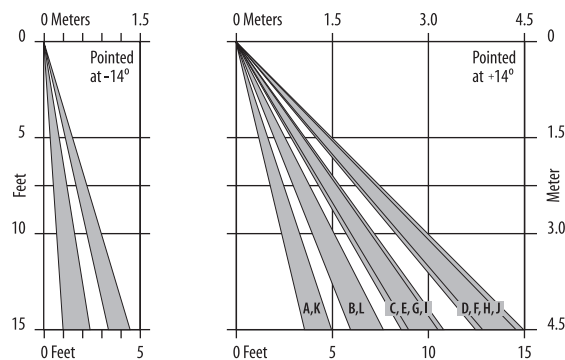


## Standard pattern

Shown wall mounted, angled  $14^\circ$  down.



## Front view



## Side view

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## 1910 Series

### Electronic horns



### Overview

Electric horns are designed for use as an immediate local audible warning device incorporated in a security system. 1910 celica horns have six combinations of volume using continuous or intermittent tone that are easy to configure. Latching models can be set up to sound when a door latchbolt retracts or the door opens. Strobe light models are also available.

Units are flush (partially recessed) or surface mounted using a 4" black box and attached using two #8-32 X 3/4" screws. Surface and flush mounting kits are included with all horns.

### Features and benefits

- Latching models alarm upon the latch release or opening of a connected door
- Audible warning has six combinations of volume using intermittent or continuous tone with loudest tested to 102 dba
- Strobe option adds visual warning indication
- Intended for indoor use only
- Flush mount to wall over a standard one- or two-gang electrical box
- Surface mount using pull through wiring and the backbox kit included with the product
- Horn shell and trim skirt in off-white
- Unit dimensions: 4 3/4"W x 5 1/2"H

# Specifications

## Models

- 1910-1: 12/24 VDC horn
- 1910S-1: 24 VDC horn with strobe
- L1910-1: 24 VDC horn with latching
- L1910S-1: 24 VDC horn with strobe and latching

## Power requirements

- Less than 14 mA @ 12 VDC
- Less than 28 mA @ 24 VDC
- Less than 71 mA @ 24 VDC with strobe

## Other

- Operating temperature: 32°F to 120°F
- Anechoic chamber tested @30 V 102 dba
- UL reverberant room tested @30 V 88 dba

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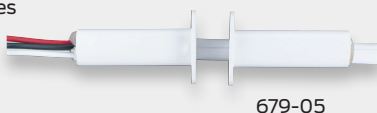
# Door position switches

## Overview

Door position switches are used to detect the open or closed status of an opening and then send this status to a control panel. They come in a variety of shapes and sizes and are designed for monitoring door positions, roof hatches, gates etc.

### Concealed SPDT magnetic switches

For wood doors and frames  
0.3 Amps @ 30 VDC



For hollow metal doors and frames  
0.3 Amps @ 30 VDC



For wood doors and metal frames  
0.3 Amps @ 30 VDC



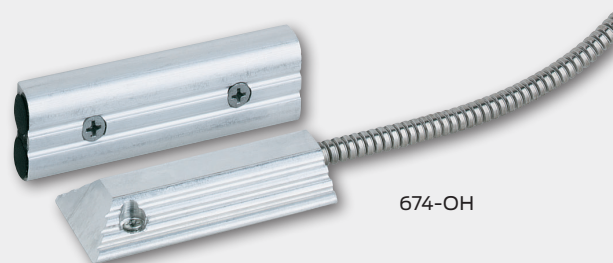
### Concealed/flush mount magnetic switches

For aluminum, wood and hollow metal doors 0.25 Amps @ 30 VDC



### Surface mount magnetic switches

For aluminum, wood and hollow metal doors 0.25 Amps @ 30 VDC



Overhead door, floor mount magnetic switch

## Ordering information

- **674-OH** - Overhead door floor mount
- **679-05** - Wood door and frame
- **679-05HM** - Hollow metal door and frame
- **679-05WD** - Wood door and metal frame
- **7764** - Concealed/flush mount
- **7766** - Surface mount

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# PB405 and PB405S

Electrified deadbolt locks



## Overview

The PB405 PowerBolt is a mortise, right angle deadbolt with a .61" bolt and a .67" throw. It is available fail-safe PB405 or fail-secure PB405S. PowerBolts install in the door frame for minimal impact to the door and a clean, cohesive opening

Note: Electromechanical locks not recommended where life safety may be compromised or where panic bar hardware is the only means of egress.

## Features and benefits

- 12/24V DC
- Magnetic door position switch
- Built in relocking time delay, field selectable for 0, 3, 6 or 9 seconds
- Fail-safe or fail-secure
- Mortise mount PowerBolts furnished in satin aluminum finish

# Specifications

## **PB405 electric dead bolt lock (fail-safe)**

- Door position switch
- 12/24 VDC dual voltage, field selectable
- Current draw: 0.9A @ 12 VDC, 0.45A @ 24 VDC
- Fail-safe type (power to lock)
- Built-in relocking option
- Relocking time delay time: 0 sec., 3 sec., 5 sec., 9 sec. field selectable utilizing two simple dip switches
- Bolt diameter: 0.61 in
- Bolt throw: 0.67 in
- Weight: 1.9 lbs
- Dimension (L x W x D): 7.87 in x 1.26 in x 1.57 in

## **PB405S electric dead bolt lock (fail-secure)**

- Door position switch
- 12/24 VDC dual voltage, field selectable
- Current draw: 0.9A @ 12 VDC, 0.45A @ 24 VDC
- Fail-secure type (power to open.), MOV surge protection.
- Relocking time delay time: 0 sec., 3 sec., 5 sec., 9 sec. field selectable utilizing two simple dip switches
- Built-in relocking option
- Bolt diameter: 0.61 in
- Bolt throw: 0.67 in
- Weight: 1.9 lbs
- Dimension (L x W x D): 7.87 in x 1.26 in x 1.57 in

# Ordering information

- **405** - Rectangular front, fail-safe
- **405S** - Rectangular front, fail-secure
- **Fail-secure lock** – Requires power to unlock
- **Fail-safe lock** – Requires power to lock

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# 442S

## Electronic cabinet lock



### Overview

The 442S is a compact and easy to install hardwired cabinet lock. It is fail secure and driven by a dual voltage solenoid. The voltage is field selectable 12 or 24 VDC. This makes ordering easy and provides greater flexibility in the field.

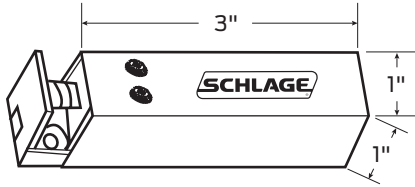
The 442S can be mounted horizontally or vertically to control access to a wide range of swinging or sliding cabinets and drawers. The 442S can be controlled by any kind of access control system that provides a dry contact output. Its small size and versatile mounting position allows you to bring increased monitoring and control to hard to reach applications such as pharmaceutical cabinets, cash drawers and display cases.

### Features and benefits

- Fail-secure power failure mode
- Dual voltage 12/24 VDC, field selectable
- Open architecture design, compatible with wide range of access control providers
- Flexible mounting options
- Ideal for pharmaceutical cabinets, cash drawers and display cases

## Specifications

Input voltage	12/24VDC dual voltage, field selectable
Current draw	.5 Amp @ 12VDC .25 Amp @ 24VDC
Dimensions (L x W x D)	3" x 1" x 1"



## Ordering information

### Select model

- 442S cabinet lock

### Standard features

- 12/24 VDC (field selectable)
- Fail secure
- Black Lexan finish

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## Appendix

This section of the Electronic access control catalog includes a number of wiring and riser diagrams for a variety of electronic access control applications.

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**Access Control System Schematic:**

- Access Control Panel** (Monitored by Access Control System) connects to the **Optional Junction Box** via **12x18** wire.
- Optional Junction Box** connects to the **PS914-2RS** via **\*4x12, 2x18** wire.
- Optional Junction Box** connects to the **MT15 Reader** via **\*2x18** wire.
- Optional Junction Box** connects to the **RX EL 99** via **\*2x12, 3x18** wire.
- Optional Junction Box** connects to the **RX EL** via **3x18** wire.
- Optional Junction Box** connects to the **DPS** via **3x18** wire.
- Optional Junction Box** connects to the **EPT 10** via **\*2x12, 3x18** wire.
- Optional Junction Box** connects to the **PS914-2RS** via **\*4x12, 2x18** wire.
- PS914-2RS** connects to the **110-240 VAC 2 AMP** via **110-240 VAC 2 AMP** wire.

**Notes:**

- \*USE 12 GAUGE WIRE DISTANCES UP TO 2
- \*USE 14 GAUGE WIRE DISTANCES UP TO 1

NOTES:

- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
- 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
- 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
- 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
- 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

**HARDWARE USED:**

- 1 - PS914-2RS
- 2 RX-EL99
- 2 DOOR POSITION SWITCHES
- 1 MT15 READER & ACP
- 2 EPT10
- 1 OPTIONAL JUNCTION BOX

OPERATION:  
DOOR NORMALLY CLOSED & LATCHED BY ACCESS CONTROL SYSTEM.  
  
VALID CREDENTIAL RETRACTS ELECTRIC PANIC DEVICES TO ALLOW ENTRY.  
  
FREE EGRESS AT ALL TIMES.  
  
DOOR POSITION & RX SWITCHES TO BE MONITORED BY ACCESS CONTROL SYSTEM.

TYPE	DOUBLE DOORS	DATE DRAWN	03-27-13	REVISION DATE	04-15-14
		DRAWN BY	B DOVE	APPROVED BY	MH



TITLE PS914-2RS WITH 2  
RXEL99 RIM, MT15, DPS

**DRAWING TYPE:** RISER

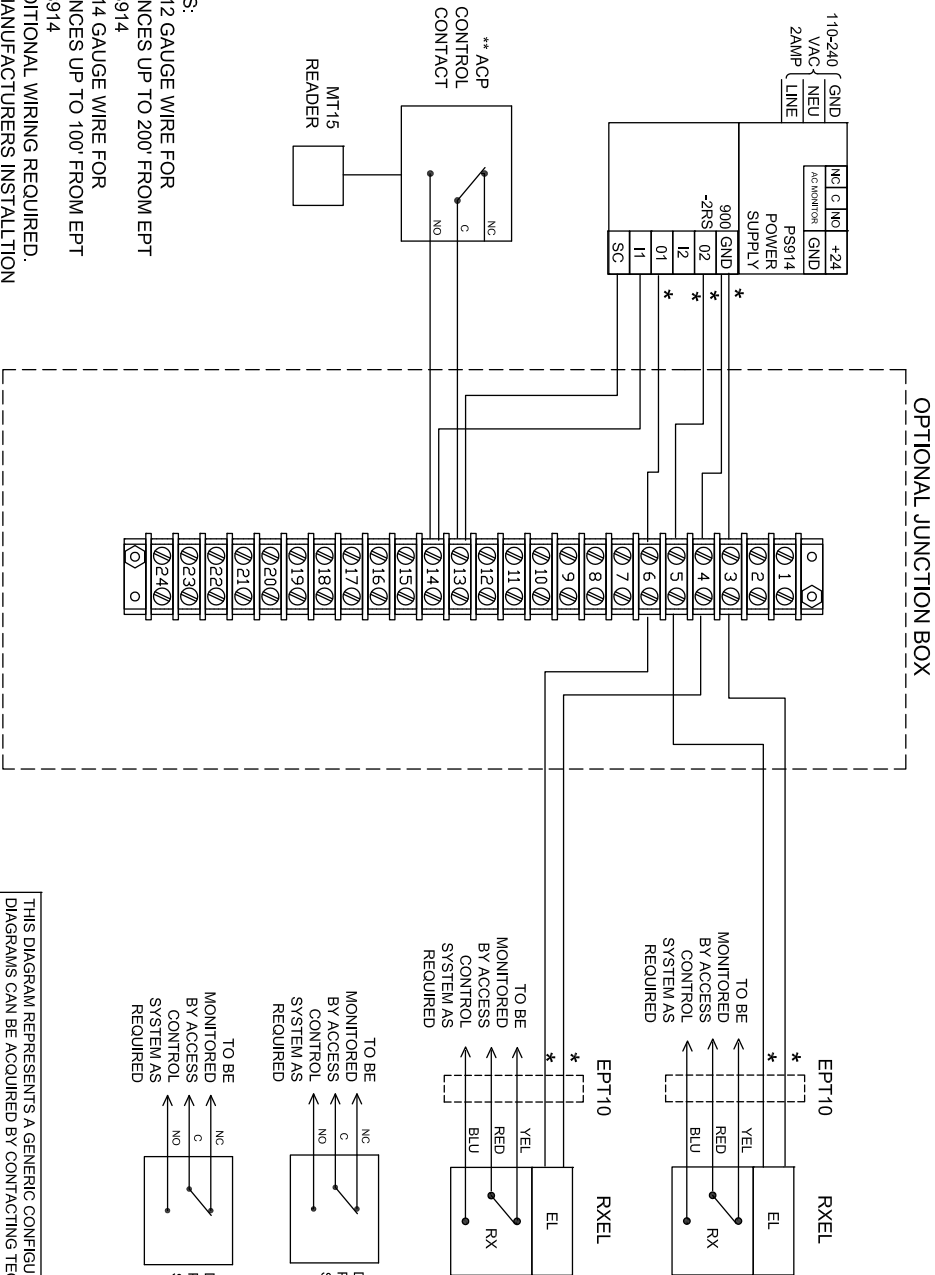
**DWG NO:** 105234

**DRAWN/CHECKED BY:** B DOVE

REV

**D**

NOTES:  
\*USE 12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
\*USE 14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914  
\*\* ADDITIONAL WIRING REQUIRED. SEE MANUFACTURERS INSTALLTION INSTRUCTIONS.



THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTICONDUCTOR COLOR CODED WITHOUT SPACES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.

4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:  
1 - PS914-2RS  
2 RXEL99  
2 DOOR POSITION SWITCHES  
1 MT15 READER & ACP  
2 EPT10  
1 OPTIONAL JUNCTION BOX

OPERATION:  
DOOR NORMALLY CLOSED & LATCHED BY ACCESS CONTROL SYSTEM, VALID CREDENTIAL RETRACTS ELECTRIC PANIC DEVICES TO ALLOW ENTRY.  
FREE EGRESS AT ALL TIMES.  
DOOR POSITION & RX SWITCHES TO BE MONITORED BY ACCESS CONTROL SYSTEM.

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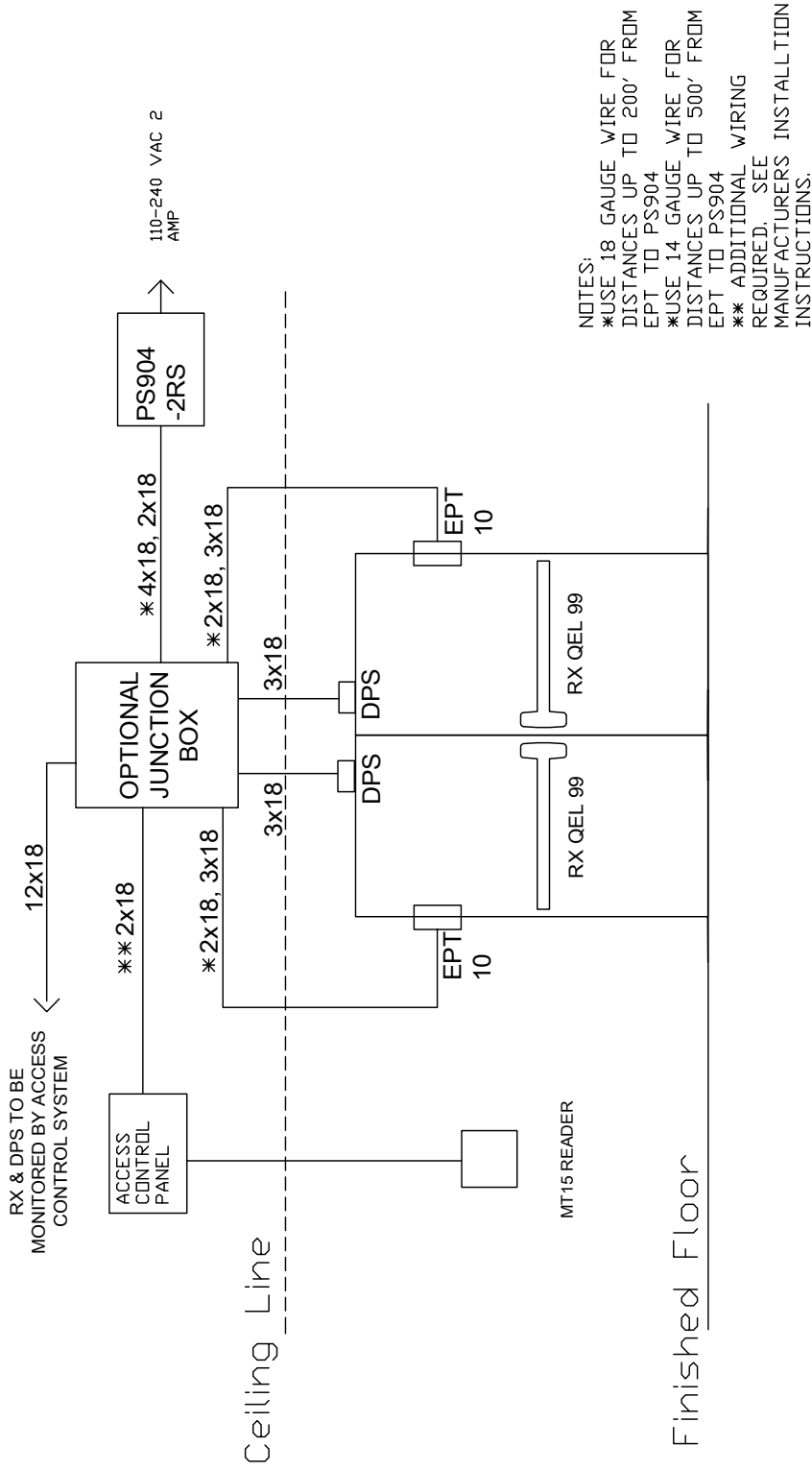
TITLE: PS914-2RS WITH 2 RXEL99  
RIM, MT15, DPS

DRAWING TYPE: WIRING  
DWG NO.: 105234  
DRAWN/CHECKED BY: B DOVE

DATE DRAWN: 03-27-13  
REVISION DATE: 04-15-14  
DRAWN BY: B DOVE  
APPROVED BY: MH

TYPE: DOUBLE DOORS

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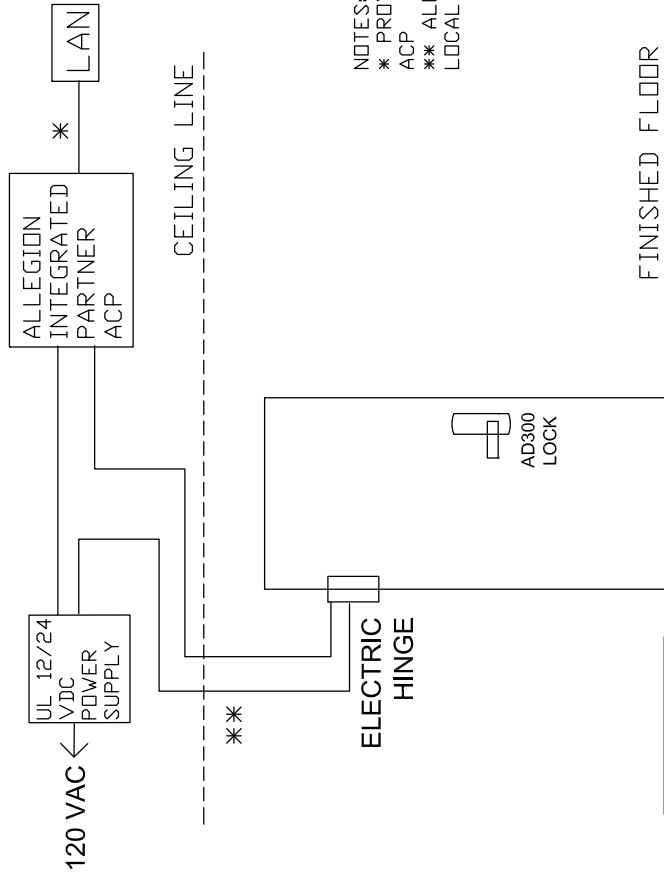


NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.	HARDWARE USED 1 - PS904-2RS 2 RX-QEL99 2 DOOR POSITION SWITCHES 1 MT15 READER & ACP 2 EPT10 1 OPTIONAL JUNCTION BOX	OPERATION: DOOR NORMALLY CLOSED & LATCHED BY ACCESS CONTROL SYSTEM.  VALID CREDENTIAL RETRACTS QUIET ELECTRIC PANIC DEVICES TO ALLOW ENTRY.  FREE EGRESS AT ALL TIMES.  DOOR POSITION & RX SWITCHES TO BE MONITORED BY ACCESS CONTROL SYSTEM.	ALLEGION™			
			TITLE PS904-2RS WITH 2 RXQEL99 RIM, MT15, DPS		REV A	
			DATE DRAWN 02-16-18		DRAWING TYPE RISER	DWG NO. 112131R
			DRAWN BY: B DOVE		REVISION DATE: 02-16-18	DRAWN/CHECKED BY: B DOVE





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DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
\* PROVIDE NETWORK CONNECTION AS REQUIRED BY ACP  
\*\* ALL WIRING MUST COMPLY WITH NFPA70 (NEC) & LOCAL CODES & MEET ACP PROVIDER REQUIREMENTS.

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD. MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:  
1 SCHLAGE AD-300 LOCK  
1 ELECTRIC HINGE  
1 UL LISTED 12/24 VDC POWER SUPPLY  
1 ALLEGION AD LOCK INTEGRATED PARTNER ACP  
TYPE SINGLE DOOR  
AD-300 RS485

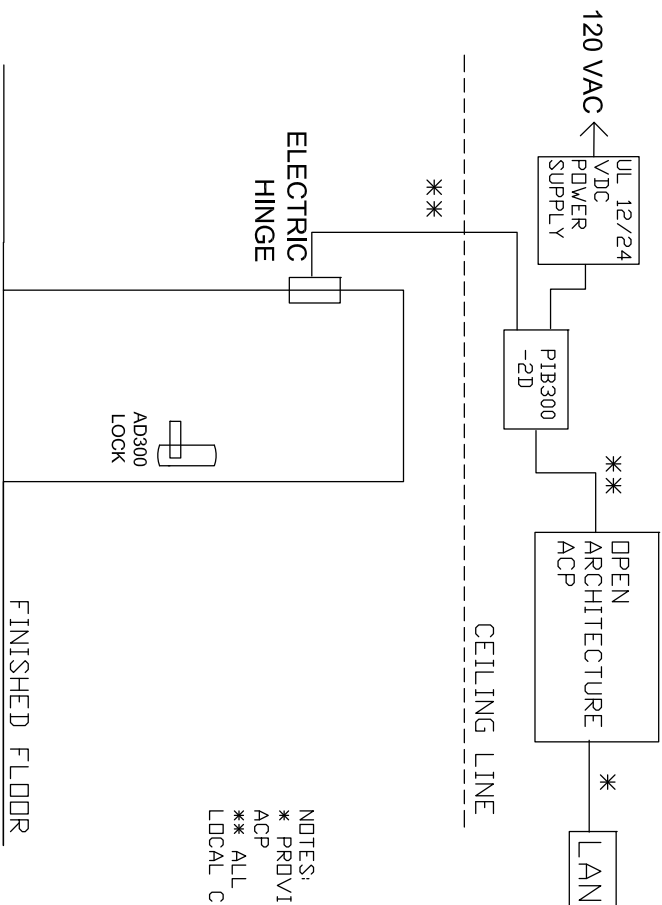
OPERATION:  
DOOR NORMALLY CLOSED & LOCKED  
VALID CREDENTIAL UNLOCKS DOOR.  
FREE GRESS AT ALL TIMES.  
CONSULT ACCESS CONTROL SYSTEM PROVIDER FOR SPECIFIC READER CAPACITY AND POINT-TO-POINT WIRING PER ACP.  
DATE DRAWN 4-3-13 REVISION DATE 5-9-2014  
copyright 2013



TITLE:  
SINGLE AD300 ALLEGION  
INTEGRATED PARTNER ACP RS485

DRAWING TYPE:  
RISER DIAGRAM  
DWG NO:  
105349  
REV:  
C  
DRAWN BY:  
B DOVE

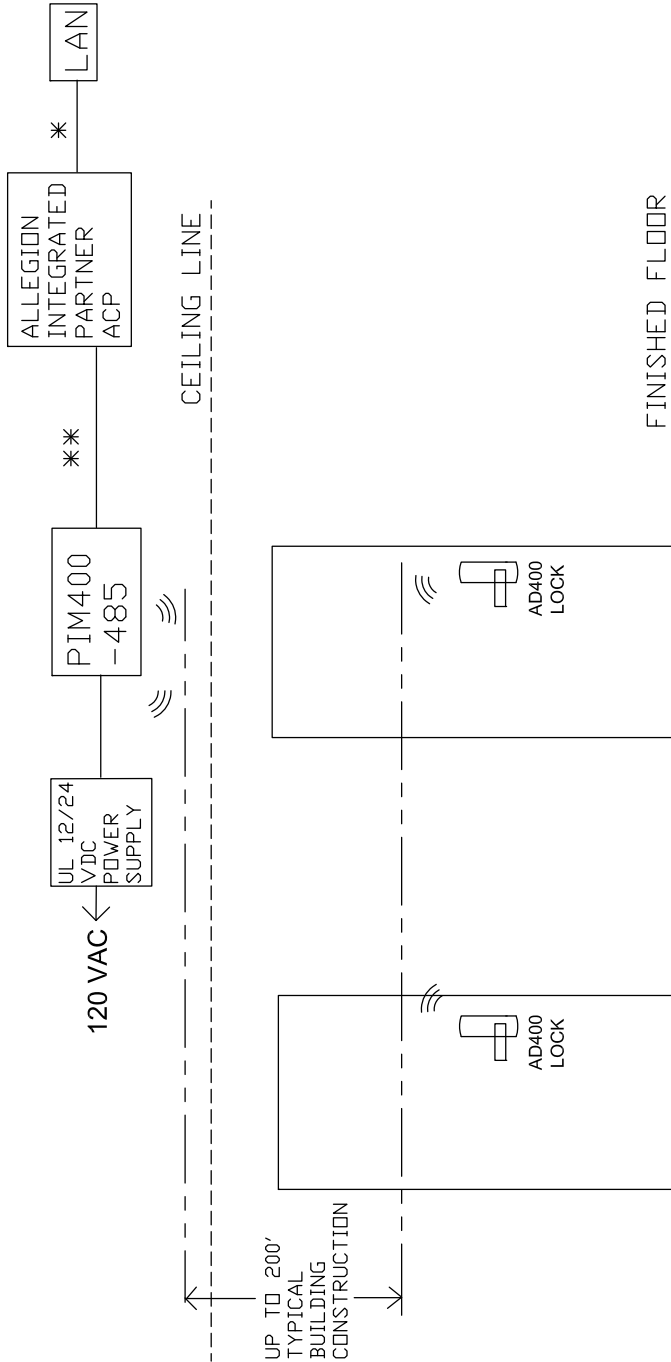
THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
\* PROVIDE NETWORK CONNECTION AS REQUIRED BY ACP  
\*\* ALL WIRING MUST COMPLY WITH NFPA70 (NEC) & LOCAL CODES & MEET ACP PROVIDER REQUIREMENTS.

NOTES: 1) ALL LDV VOLTAGE WIRING TO BE STANDARD MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.		HARDWARE USED: 1 SCHLAGE AD-300 LOCK 1 ELECTRIC HINGE 1 PIB300-2D 1 UL LISTED 12/24 VDC POWER SUPPLY 1 OPEN ARCHITECTURE ACP		OPERATION: DOOR NORMALLY CLOSED & LOCKED VALID CREDENTIAL UNLOCKS DOOR. FREE GRESS AT ALL TIMES. CONSULT ACCESS CONTROL SYSTEM PROVIDER FOR SPECIFIC READER CAPACITY AND POINT-TO-POINT WIRING PER ACP.		DATE DRAWN: 4-3-13 REVISION DATE: 5-9-2014		TITLE: SINGLE AD300 OPEN ARCHITECTURE ACP WIEGAND	
TYPE SINGLE DOOR AD-300 WIEGAND		copyright 2013		DRAWING TYPE: RISER DIAGRAM		DWG NO: 105348 DRAWN/CHECKED BY: B DOVE		REV: C	

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
\* PROVIDE NETWORK CONNECTION AS REQUIRED BY ACP  
\*\* ALL WIRING MUST COMPLY WITH NFPA70 (NEC) & LOCAL CODES & MEET ACP PROVIDER REQUIREMENTS.

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:  
UP TO 16 SCHLAGE AD-400 DEVICES  
1 UL LISTED 12/24 VDC POWER SUPPLY  
1 PIM400-485  
1 ALLEGION AD LOCK INTEGRATED PARTNER ACP

TYPE  
AD-400 INTEGRATED  
RS485 ACP

OPERATION:  
DOOR NORMALLY CLOSED & LOCKED  
VALID CREDENTIAL UNLOCKS DOOR.  
FREE EGRESS AT ALL TIMES.  
EACH PIM400-485 CAN SUPPORT UP TO SIXTEEN AD-400 DEVICES.  
CONSULT ACCESS CONTROL SYSTEM PROVIDER FOR SPECIFIC READER CAPACITY AND POINT-TO-POINT WIRING PER ACP.

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**ALLEGION™**

TITLE: AD400 ALLEGION INTEGRATED PARTNER ACP RS485

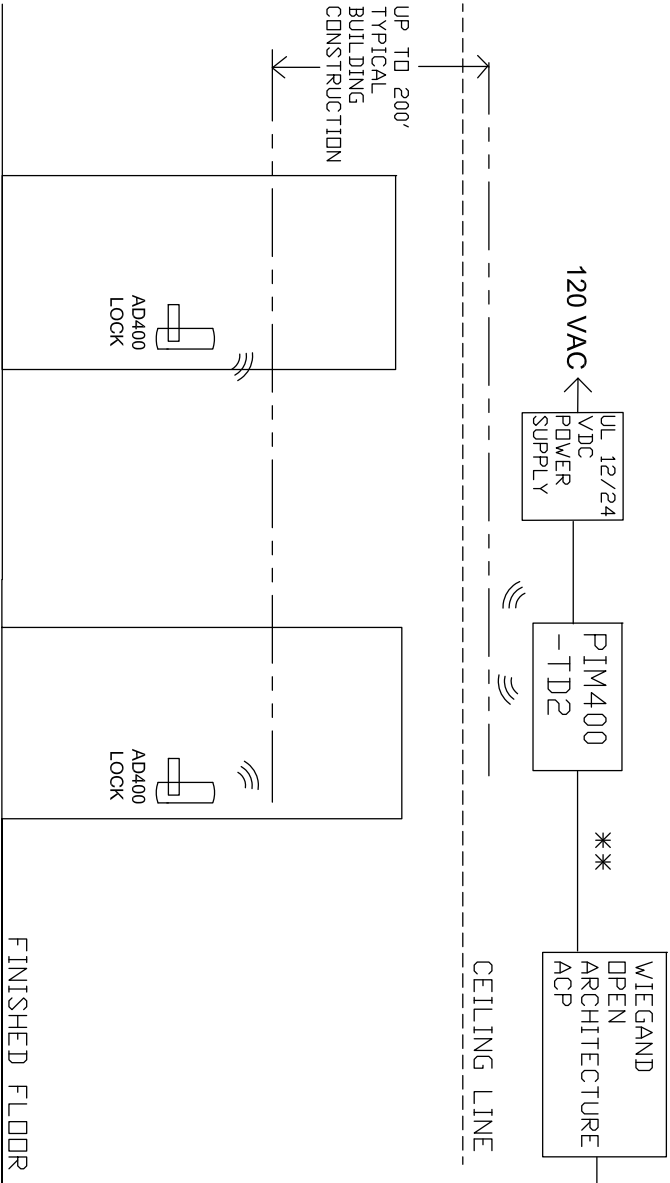
DRAWING TYPE: RISER DIAGRAM

DWG NO: 105351

REV: C

DRAWN BY: B DOVE

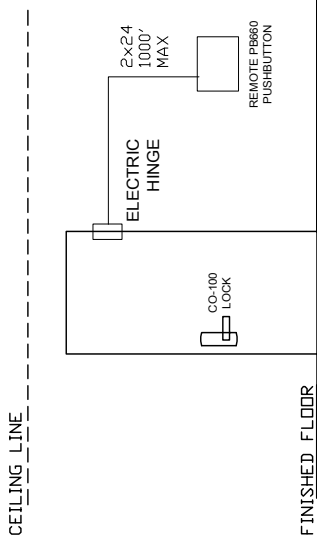
THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



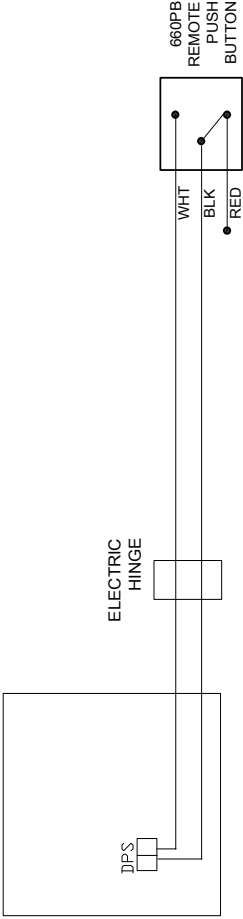
NOTES:  
\* PROVIDE NETWORK CONNECTION AS REQUIRED BY ACP  
\*\* ALL WIRING MUST COMPLY WITH NFPA70 (NEC) & LOCAL CODES & MEET ACP PROVIDER REQUIREMENTS.

NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.		HARDWARE USED: UP TO 2 SCHLAGE AD-400 DEVICES 1 UL LISTED 12/24 VDC POWER SUPPLY 1 PIM400-TD2 1 OPEN ARCHITECTURE ACP		OPERATION: DOOR NORMALLY CLOSED & LOCKED VALID CREDENTIAL UNLOCKS DOOR. FREE EGRESS AT ALL TIMES. EACH PIM400-TD2 CAN SUPPORT UP TO 2 AD-400 DEVICES. CONSULT ACCESS CONTROL SYSTEM PROVIDER FOR SPECIFIC READER CAPACITY AND POINT-TO-POINT WIRING PER ACP.		<div>ALLEGIION™</div> <div>AD400 OPEN ARCHITECTURE</div> <div>ACP RS485</div>		
TYPE AD-400 OPEN ARCHITECTURE		DATE DRAWN 4-3-13		REVISION DATE 5-9-14		DRAWING TYPE: RISER DIAGRAM		
		copyright 2013				DRWG NO.: 105350 DRAWN/CHECKED BY: B DOVE		
						REV: C		

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



### CO-100 INTERIOR ESCUTCHEON PCB



- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

#### HARDWARE USED:

- 1 SCHLAGE CO-100 50 OFFICE FUNCTION STANDALONE LOCK MIN F.W. VERSION 2.6.2
- 1 ELECTRIC HINGE
- 1 PB660 REMOTE PUSHBUTTON

TYPE  
CO100 WITH REMOTE  
PUSHBUTTON

#### OPERATION:

DOOR NORMALLY CLOSED & LOCKED  
VALID PIN UNLOCKS DOOR. REMOTE PUSHBUTTON RELEASES DOOR FOR THE PRE-PROGRAMMED RELOCK DELAY.  
FREE GRESS AT ALL TIMES.

DATE DRAWN 02-13-18 REVISION DATE 02-13-18



TITLE:  
CO100 WITH REMOTE PUSHBUTTON

DRAWING TYPE:  
RISER DIAGRAM

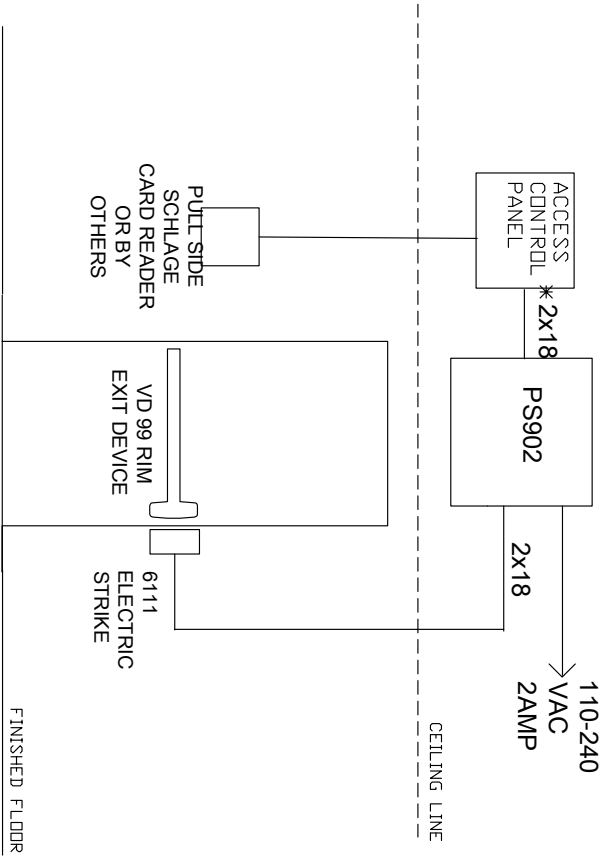
DWG NO.: 112121

DRAWN/CHECKED BY: B DOVE

REV

A

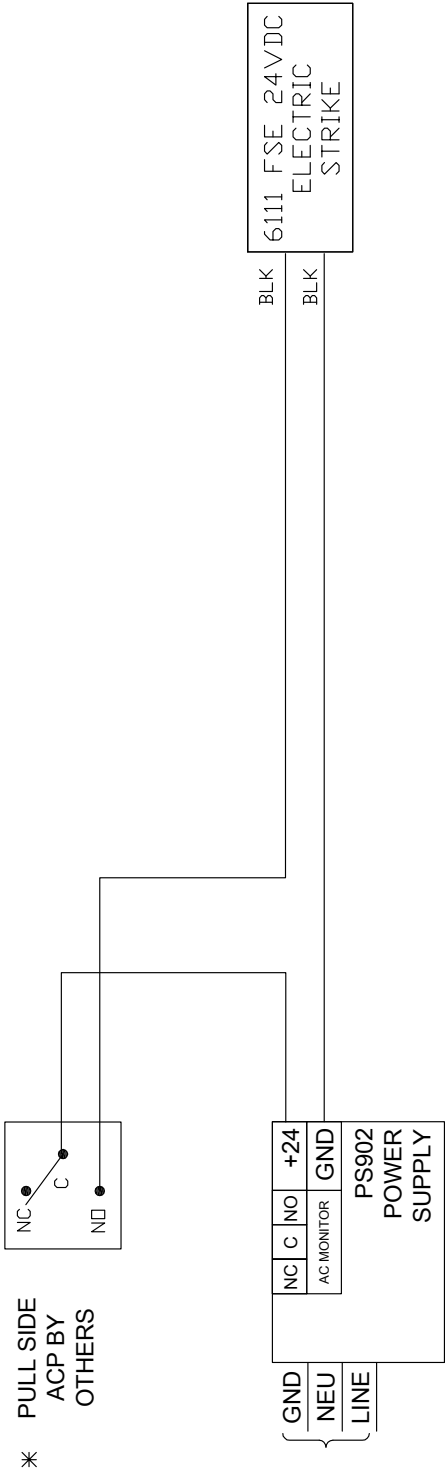
THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\* ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION

NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) * CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.	HARDWARE USED: <b>6111 FSE 24VDC Electric Strike</b> <b>VD 99 Rim Exit device</b> <b>PS902 Power Supply</b> <b>Schlage or Card Reader By Others</b> <b>with Access Control Panel</b>		OPERATION: PULL SIDE CARD READER TO UNLOCK ELECTRIC STRIKE TO ALLOW ENTRY. 6111 FSE ESTRIKE WILL LOCK ON POWER OUTAGE. FREE EGRESS ALWAYS FROM PUSH SIDE OF 99 RIM EXIT DEVICE IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN THE PS902 ENCLOSURE.		TYPE: 6111 FSE ESTRIKE WITH SCHLAGE OR CR BD				
	DATE DRAWN: 3-13-13	REVISION DATE: 3-13-13							
<div>ALLEGION™ TYPE 6111 WITH PS902 AND SCHLAGE OR CARD READER BY OTHERS</div> <table><tr><td>DRAWING TYPE: RISER DIAGRAM</td><td>DWG NO.: 109439</td><td>REV: C</td></tr></table>							DRAWING TYPE: RISER DIAGRAM	DWG NO.: 109439	REV: C
DRAWING TYPE: RISER DIAGRAM	DWG NO.: 109439	REV: C							

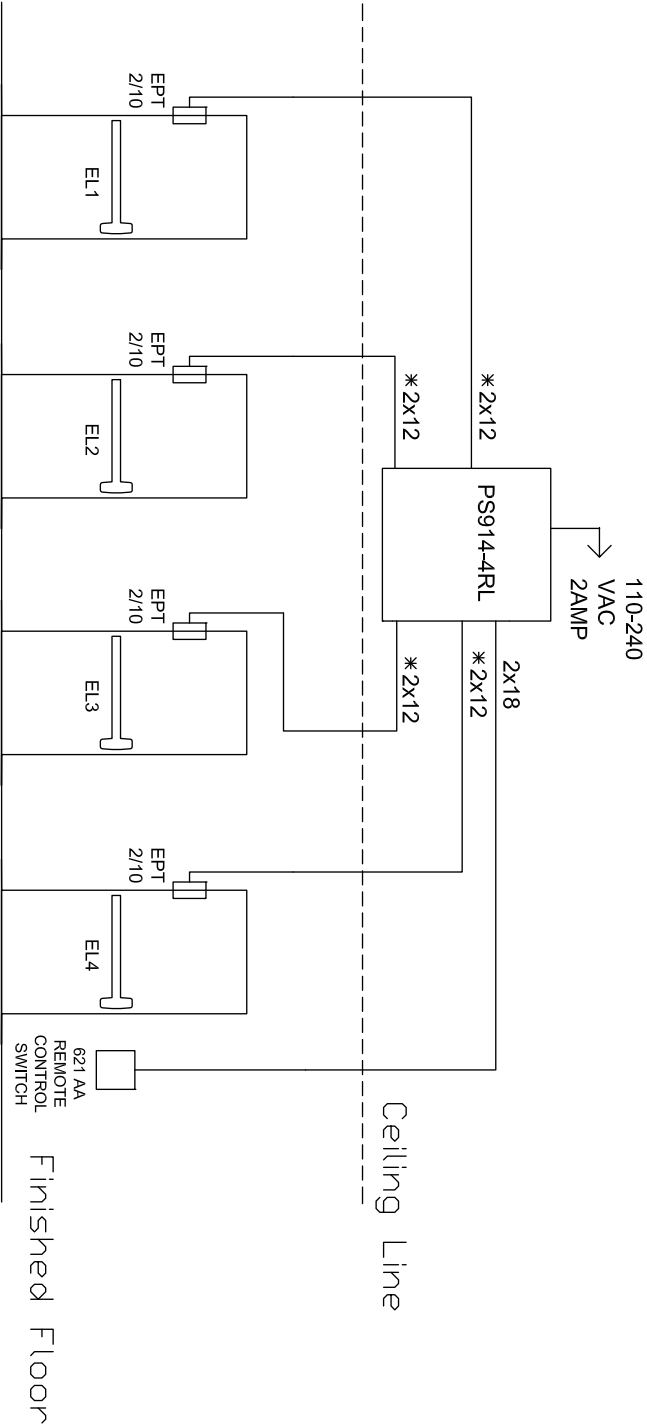
THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\* ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION

<div>NOTES: 1) ALL LDW VOLTAGE WIRING TO BE STANDARD. MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) * CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.</div>	<div>HARDWARE USED:  <b>6111 FSE 24VDC Electric Strike</b>  <b>VD 99 Rim Exit device</b>  <b>PS902 Power Supply</b>  <b>Schlage or Card Reader By Others with Access Control Panel</b></div>	OPERATION: PULL SIDE SCHLAGE OR CARD READER BY OTHERS TO UNLOCK ELECTRIC STRIKE TO ALLOW ENTRY.  6111 FSE STRIKE WILL LOCK ON POWER OUTAGE.  FREE EGRESS ALWAYS FROM PUSH SIDE OF 99 RIM EXIT DEVICE  IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN THE PS902 ENCLOSURE.	
		DATE 3-13-13	REVISION DATE 3-13-13
		TYPE 6111 FSE STRIKE WITH SCHLAGE OR CR BO	
		DRAWING TYPE WIRING DIAGRAM	
		TITLE FSE 6111 WITH PS902 AND SCHLAGE OR CARD READER BY OTHERS	
ALLEGION™		DWG NO. 109439	REV C
		DRAWN/CHECKED BY: B DYE	

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\* USE #12 GAUGE WIRE FOR DISTANCES  
UP TO 200' FROM EPT TO PS914  
\* USE #14 GAUGE WIRE FOR DISTANCES  
UP TO 100' FROM EPT TO PS914

NOTES:  
1) ALL LVD VOLTAGE WIRING TO BE STANDARD,  
MULTI-CONDUCTOR CABLE CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL,  
STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION  
INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION  
OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS  
CONTROL PANEL PROVIDER.

HARDWARE USED:  
4 VDN DUPLEX DR FALCON EL PANIC  
DEVICES  
1 PS914-4RL POWER SUPPLY  
4 EPT POWER TRANSFERS  
621 AA REMOTE CONTROL PUSH  
BUTTON

TYPE  
REMOTE 621AA PB WITH  
4 ALLEGION EL DEVICES

OPERATION:  
REMOTE CONTROL 621 AA PB TO SIGNAL ALL FOUR ELECTRIC  
PANIC BARS TO RETRACT FOR ENTRY.  
THIS CONFIGURATION REPRESENTS A NON FIRE RATED  
OPENING.  
IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN  
PS914 ENCLOSURE.

DATE DRAWN 3-20-13  
REVISION DATE 3-14-14  
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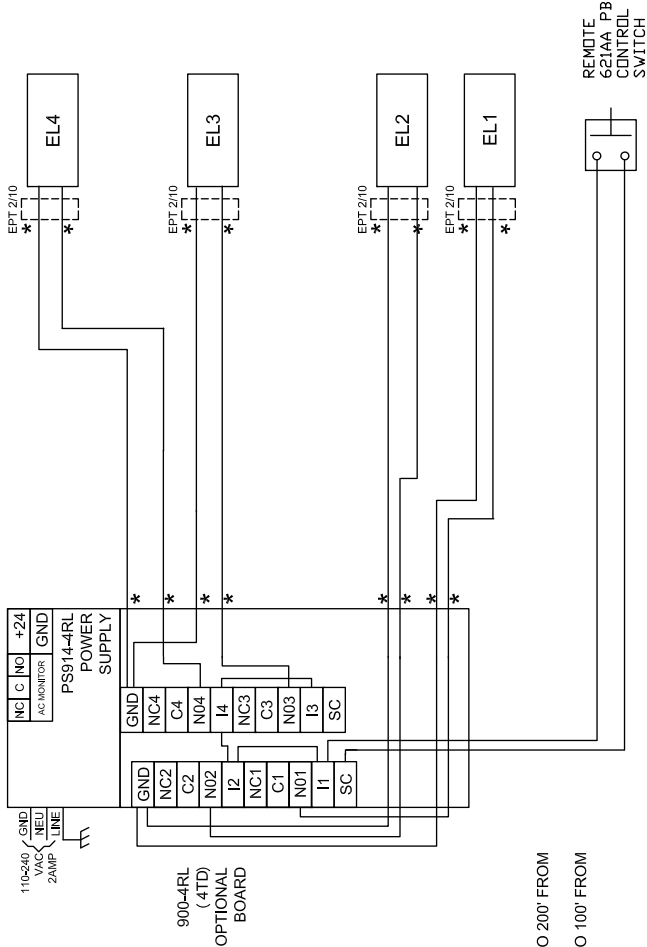
ALLEGION™

TITLE:  
REMOTE 621AA PB WITH  
4 ALLEGION EL PANICS

DWG NO: 109440  
DRAWING CHECKED BY: B DOVE/B DYE  
REV: C



THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\* USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
\* USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914

900-4RL CARD SW2 SET SWITCH 1 AND 2 OFF  
900-4RL CARD SW1 SET AS REQUIRED FOR TIME DELAYS  
- SEE INSTRUCTION SHEET FOR DETAILS

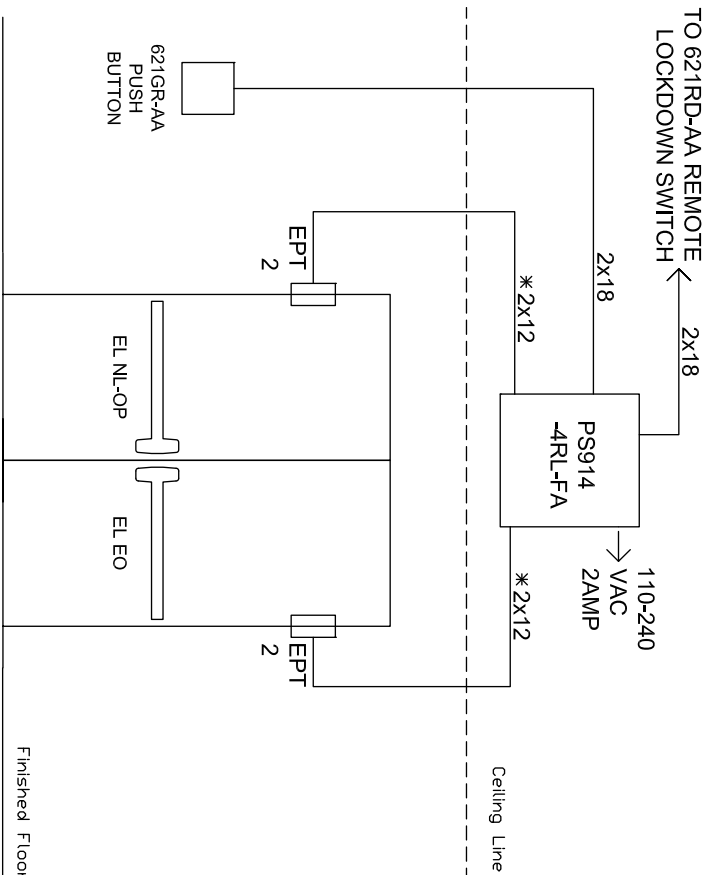
- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:	4 VON DUPRIN OR FALCON EL PANIC DEVICES
	1 PS914-4RL POWER SUPPLY
TYPE	4 EPT POWER TRANSFERS
	621 AA REMOTE CONTROL SWITCH
REMOTE 621AA PB WITH 4 ALLEGION EL DEVICES	

OPERATION: REMOTE CONTROL 621AA PB TO SIGNAL ALL FOUR ELECTRIC PANIC BARS TO RETRACT FOR ENTRY.  THIS CONFIGURATION REPRESENTS A NON FIRE RATED OPENING.  IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS914 ENCLOSURE.	
DATE DRAWN	3-20-13
REVISION DATE	3-14-14
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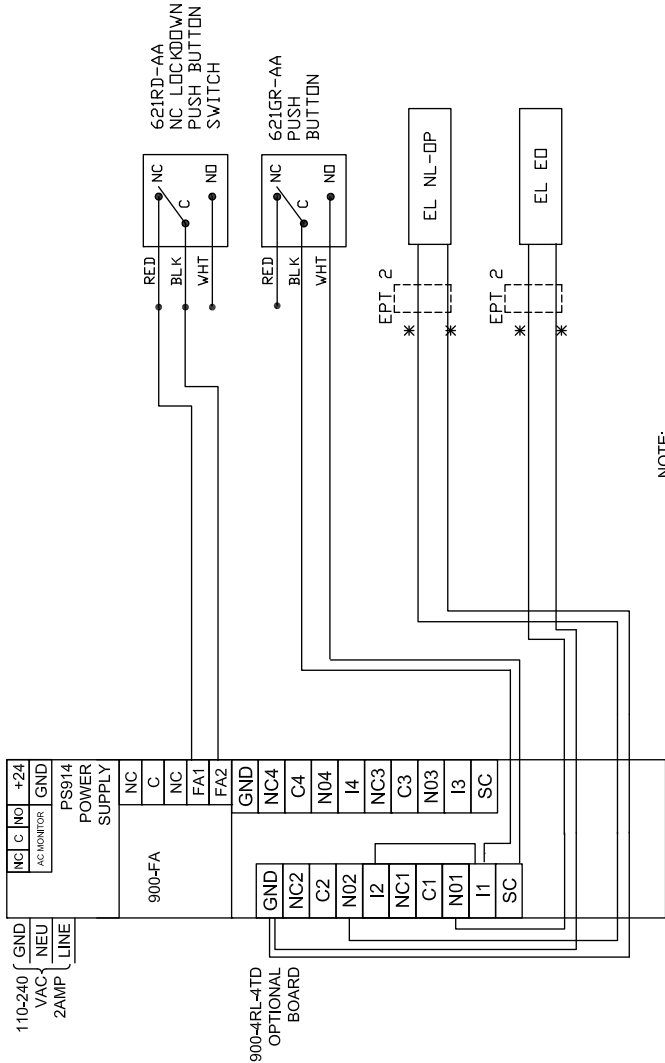
ALLEGION™	
TITLE: REMOTE 621AA PB WITH 4 ALLEGION EL PANICS	
DRAWING TYPE: WIRING DIAGRAM	DWG NO: 109440
REV C	DRAWN/CHECKED BY: B DOVE/ B DYE

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.		HARDWARE USED: 2 VONDUPPIN OR FALCON EL PANIC DEVICES 1 621GR-AA PUSH BUTTON 1 621RD-AA PUSH BUTTON 1 PS914-4RL-FA POWER SUPPLY		OPERATION: EL LATCHES HELD SIGNALLED TO RETRACT BY 621GR-AA PUSH BUTTON. IN THE EVENT OF AN EMERGENCY PRESSING 621RD REMOTE PUSH BUTTON WILL CAUSE EL LATCHES TO EXTEND SECURING DOOR FROM PULL SIDE.  THIS EXAMPLE IS FOR A NON FIRE RATED APPLICATION. IN THIS EXAMPLE ALL CONNECTIONS ARE MADE IN PS914 ENCLOSURE.		TITLE: PS914-4RL-FA EL PAIR EMERGENCY RELEASE	
TYPE EMERGENCY RELEASE OF ALLEGION EL PANIC DEVICES		DATE DRAWN 3-21-13		REVISION DATE 3-14-14		DRAWING TYPE RISER DIAGRAM	
						DWG NO: 109444	
						DRAWN/CHECKED BY: BRENDA DOVE	
						REV: C	

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\*USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
\*USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914

NOTES:

- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
- 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
- 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
- 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.

HARDWARE USED:

- 2 VONDUPRIN OR FALCON EL PANIC DEVICES
- 1 621GR-AA PUSH BUTTON
- 1 621RD-AA PUSH BUTTON
- 1 PS914-4RL-FA POWER SUPPLY

TYPE  
EMERGENCY RELEASE OF  
ALLEGION EL PANIC DEVICES

OPERATION:

EL LATCHES HELD SIGNALLED TO RETRACT BY 621GR-AA PUSH BUTTON.  
IN THE EVENT OF AN EMERGENCY PRESSING 621RD REMOTE PUSH BUTTON WILL CAUSE EL LATCHES TO EXTEND SECURING DOOR FROM PULL SIDE.  
THIS EXAMPLE IS FOR A NON FIRE RATED APPLICATION.  
IN THIS EXAMPLE ALL CONNECTIONS ARE MADE IN PS914 ENCLOSURE.

DATE DRAWN 3-21-13 REVISION DATE: 3-14-14

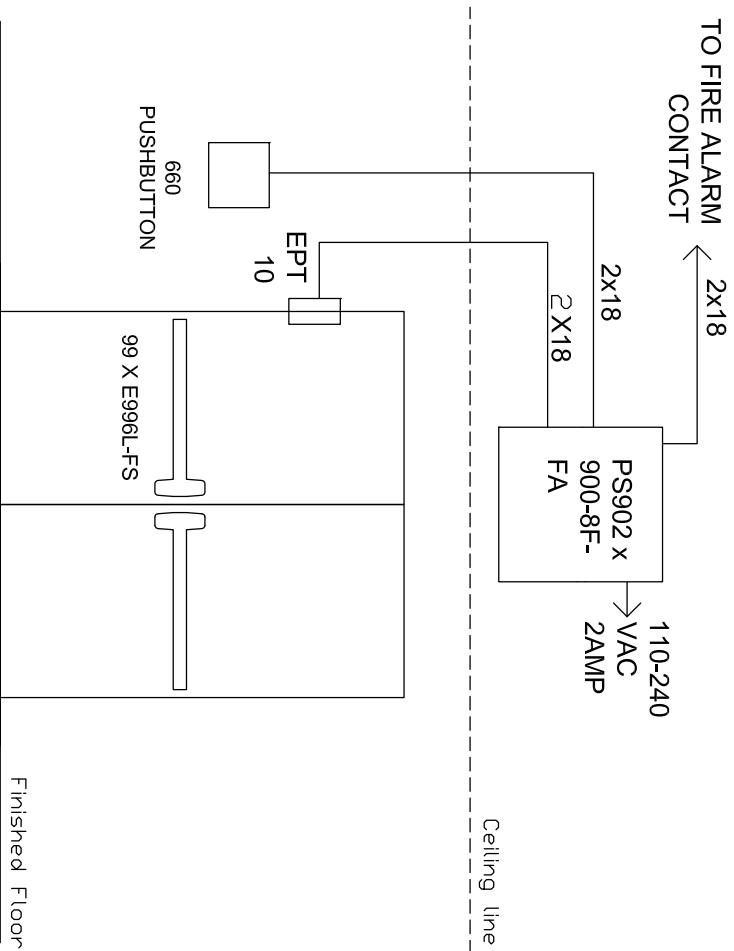
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TITLE:  
PS914-4RL-FA EL PAIR  
EMERGENCY RELEASE

DWG NO: 109444  
DRAWING TYPE: WIRING DIAGRAM  
REV: C  
DRAWN BY: B DOVE/

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP HARDWARE NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:		OPERATION:	
1 VD 99 x E996L FS 24VDC		660 PUSHBUTTON TO RELEASE FAI SAFE E996L FOR AUTHORIZED ENTRY.	
1 PS902-8F-FA Power Supply		FIRE ALARM CONTACT TO RELEASE THE ELECTRIC TRIM TO ALLOW ENTRY.	
1 660 Pushbutton		IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.	
Fire Alarm Contact by Others			
TYPE		DATE DRAWN	REVISION DATE
FS E996L WITH 660 PB AND FIRE ALARM RELEASE		3-21-13	3-21-13

ALLEGION™



TITLE:

FS E996L WITH PS902-8F-FA

DRAWING TYPE:

RISER DIAGRAM

DWG NO:

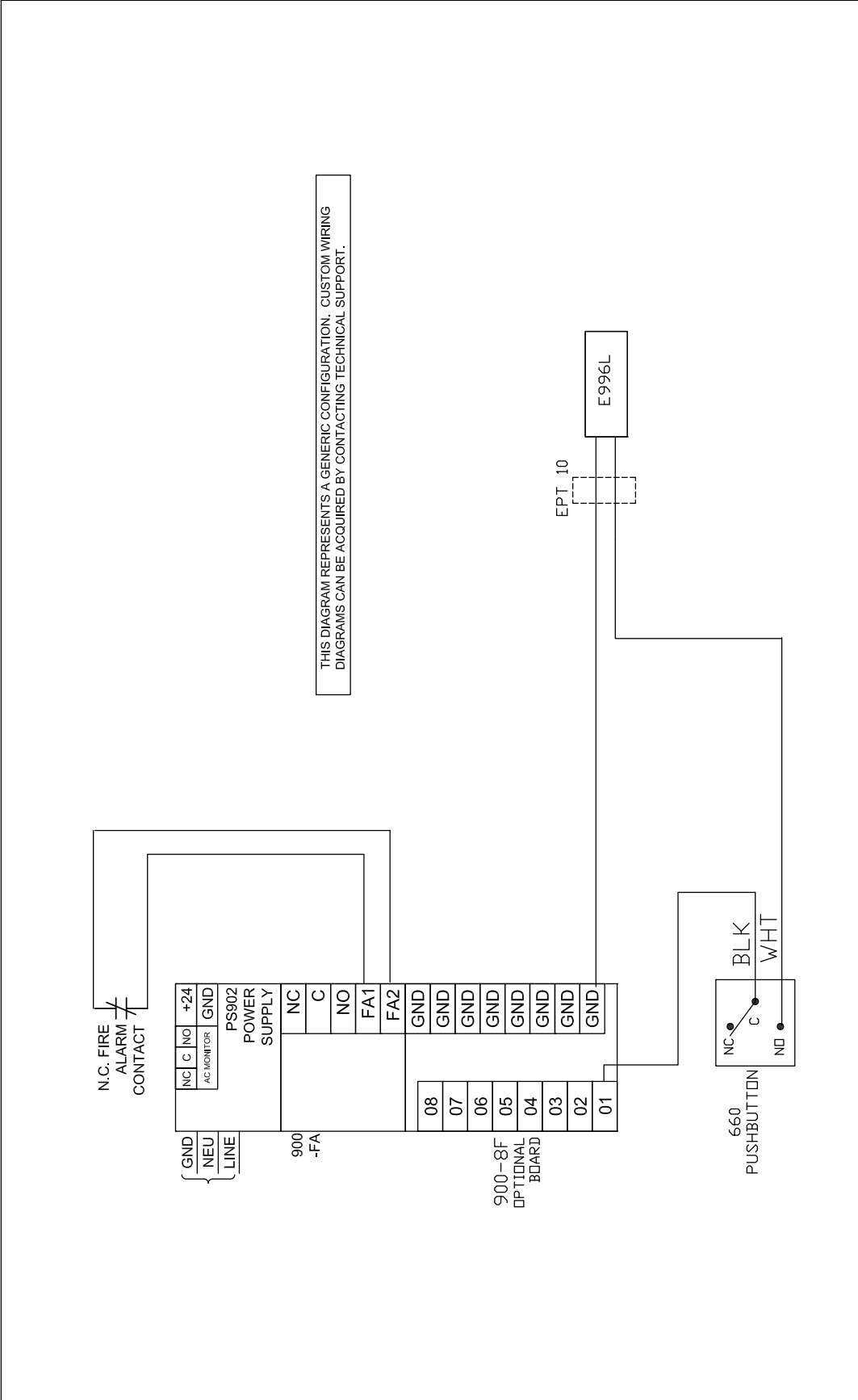
109445


DRAWN/CHECKED BY:

B DOVE

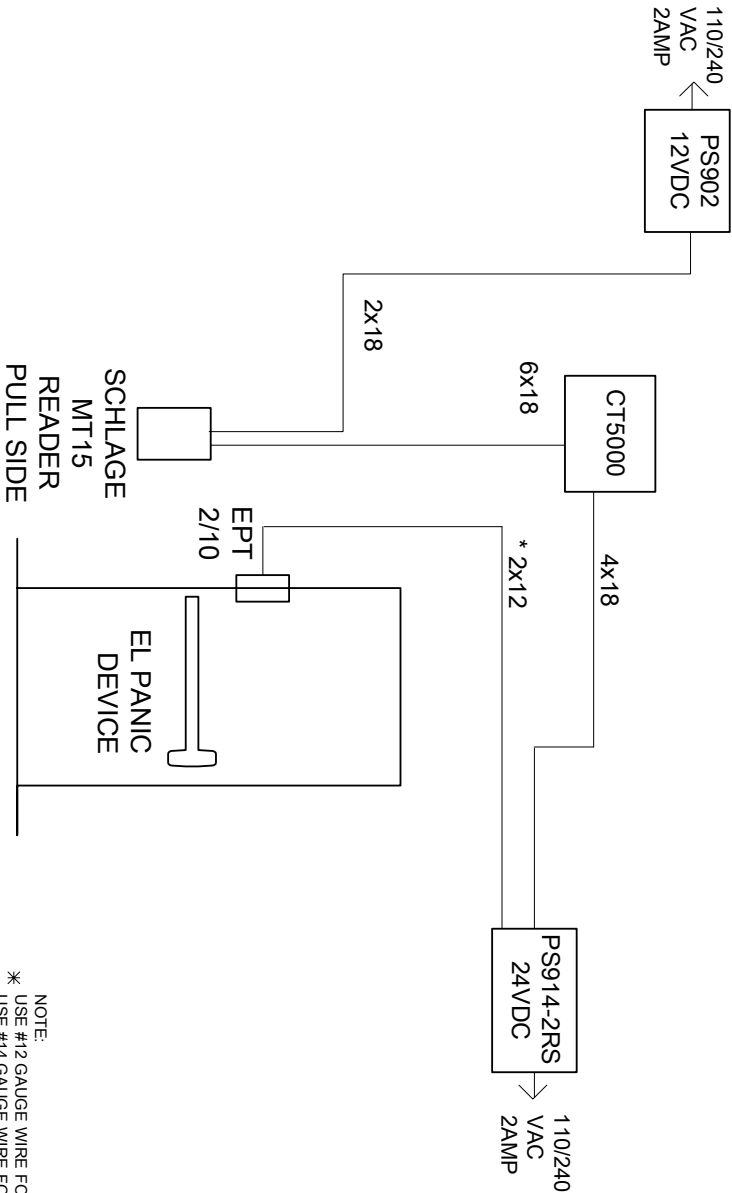
REV:

A



<div>NOTES:</div> <div>1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.</div> <div>2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.</div> <div>3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.</div> <div>4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.</div> <div>5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.</div>	<div>HARDWARE USED:</div> <div>1 VD 99 x E996L FS 24VDC</div> <div>1 PS902-8F-FA Power Supply</div> <div>1 660 Pushbutton</div> <div>Fire Alarm Contact by Others</div>	<div>OPERATION:</div> <div>660 PUSHBUTTON TO RELEASE FAIL SAFE E996L FOR AUTHORIZED ENTRY.</div> <div>FIRE ALARM CONTACT TO RELEASE THE ELECTRIC TRIM TO ALLOW ENTRY.</div> <div>IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.</div>	<div>ALLEGION™</div> <div></div>		
	<div>TITLE:</div> <div>FS E996L WITH PS902-8F-FA</div>		<div>DRAWING TYPE:</div> <div>WIRING DIAGRAM</div>	<div>DWG NO:</div> <div>109445</div>	<div>REV</div> <div>A</div>
	<div>TYPE</div> <div>FS E996L WITH 660 PB AND FIRE ALARM RELEASE</div>	<div>DATE DRAWN</div> <div>3-21-13</div>	<div>REVISION DATE:</div> <div>3-21-13</div>	<div>DRAWN/CHECKED BY:</div> <div>B DOVE</div>	

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\* USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914.  
\* USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914.

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:	
1 CT5000	
1 MT15 SCHLAGE READER	
1 VD OR FALCON EL PANIC	
1 EPT2/10	
1 PS902	
1 PS914-2RS	
TYPE	ACCESS CONTROL WITH EL PANIC

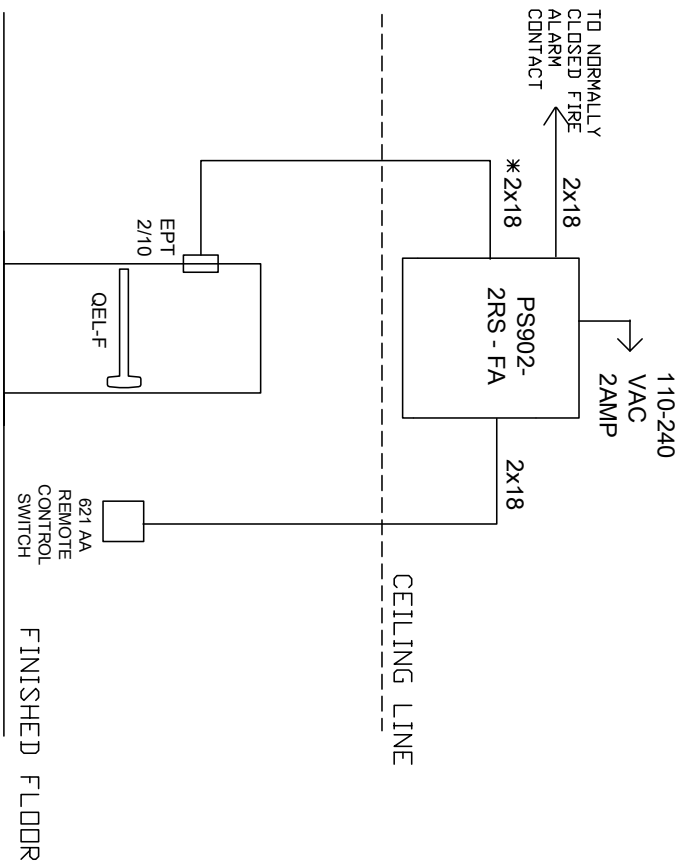
OPERATION: SCHLAGE MT15 READER TO RETRACT THE ELECTRIC LATCH ON PANIC BAR TO ALLOW ENTRY. FREE EGRESS ALWAYS PERMITTED THIS IS NOT A FIRE RATED APPLICATION	
DATE DRAWN	3-26-13
REVISION DATE	07-03-17

TITLE	
CT5000 WITH EL AND PS914-2RS AND PS902	
DRAWING TYPE	RISE R DIAGRAM
DWG NO.	109499
DRAWN/CHECKED BY:	BRENDA DOVE
REV	B





THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.

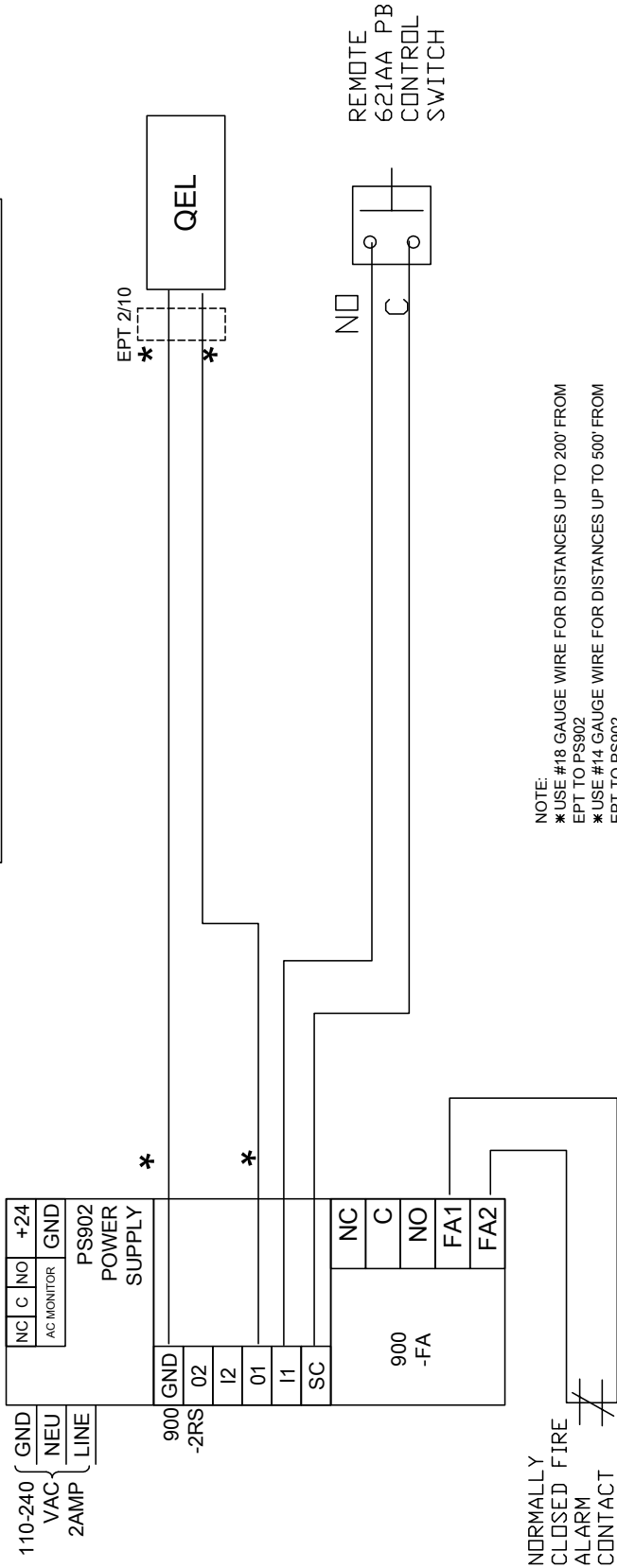


NOTE:  
\* USE #18 GAUGE WIRE FOR DISTANCES UP TO 200'  
FROM EPT TO PS902  
\* USE #14 GAUGE WIRE FOR DISTANCES UP TO 500'  
FROM EPT TO PS902  
SET PS902 TO 24VDC

NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) * CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.		HARDWARE USED: 1 VDN DUPLEX RATED QEL PANIC DEVICES 1 PS902-2RS POWER SUPPLY 1 EPT POWER TRANSFERS 1 621 AA REMOTE CONTROL PUSH BUTTON 1 FIRE ALARM CONTACT		OPERATION: REMOTE CONTROL 621 AA PB TO SIGNAL SINGLE QEL ELECTRIC PANIC BAR TO RETRACT FOR ENTRY. RELEASING 621 AA PUSH BUTTON OR FIRE ALARM TO CAUSE QEL LATCHES TO EXTEND. IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.		DATE DRAWN02-16-18		REVISION DATE02-16-18		TITLE: REMOTE 621AA PB WITH SINGLE FIRE RATED ALLEGION QEL PANICS	
TYPE REMOTE 621AA PB WITH SINGLE FIRE RATED ALLEGION QEL DEVICES		DRAWING TYPE: RISER DIAGRAM		DWG NO. 112133R		DRAWN/CHECKED BY: B DOVE		REV A		ALLEGION™	



THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



SET PS902 TO 24VDC

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.

HARDWARE USED:

- 1 VDN DUPRIN RATED QEL PANIC DEVICES
- 1 PS902-2RS POWER SUPPLY
- 1 EPT POWER TRANSFERS
- 1 621 AA REMOTE CONTROL PUSH BUTTON
- 1 FIRE ALARM CONTACT

TYPE REMOTE 621AA PB WITH SINGLE FIRE RATED ALLEGION QEL DEVICES

OPERATION:  
REMOTE CONTROL 621 AA PB TO SIGNAL SINGLE QEL ELECTRIC PANIC BAR TO RETRACT FOR ENTRY.  
RELEASING 621 AA PUSH BUTTON OR FIRE ALARM TO CAUSE QEL LATCHES TO EXTEND.

IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.

DATE DRAWN 02-16-18 REVISION DATE 02-16-18



TITLE: REMOTE 621AA PB WITH SINGLE FIRE RATED ALLEGION QEL PANICS

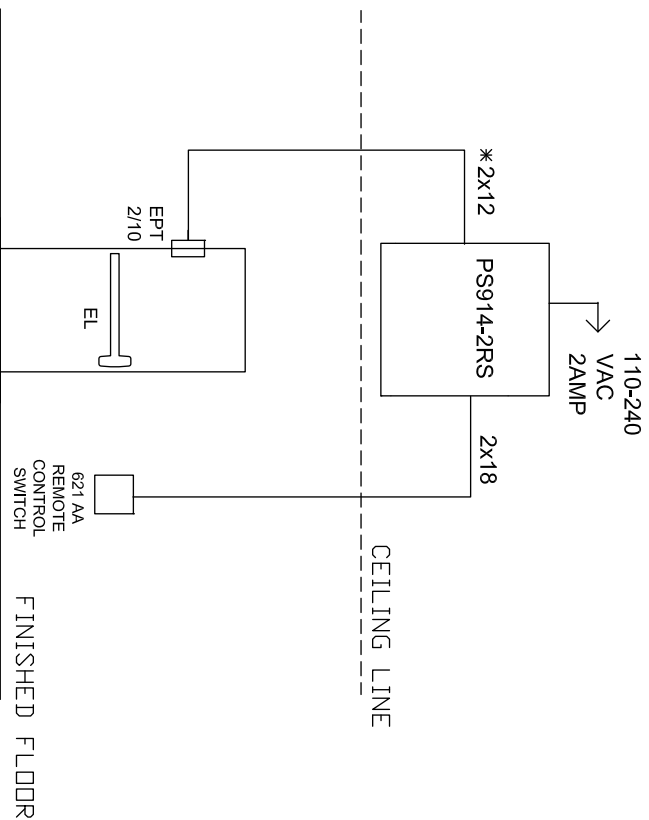
DRAWING TYPE: WIRING DIAGRAM

DWG NO: 112133W

DRAWN/CHECKED BY: B DOVE

REV: A

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\*USE #12 GAUGE WIRE FOR DISTANCES  
UP TO 200' FROM EPT TO PS914  
\*USE #14 GAUGE WIRE FOR DISTANCES  
UP TO 100' FROM EPT TO PS914

SETP PS914 TO 24VDC

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD  
MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL,  
STATE AND LOCAL ELECTRICAL CODES.

3) REFER TO SPECIFIC PRODUCT INSTALLATION  
INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.

4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION  
OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.

5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS  
CONTROL PANEL PROVIDER.

HARDWARE USED:

- 1 VDN DUPRIN DR FALCON EL PANIC  
DEVICES
- 1 PS914-RS POWER SUPPLY
- 1 EPT POWER TRANSFERS
- 1 621 AA REMOTE CONTROL PUSH  
BUTTON

OPERATION:

REMOTE CONTROL 621 AA PB TO SIGNAL SINGLE EL ELECTRIC  
PANIC BAR TO RETRACT FOR ENTRY.  
THIS CONFIGURATION REPRESENTS A NON FIRE RATED  
OPENING.

IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN  
PS914 ENCLOSURE.

TYPE

REMOTE 621AA PB WITH SINGLE  
ALLEGION EL DEVICES

DATE

DRAWN 5-3-13

REVISION DATE 3-14-14

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**ALLEGION™**



TITLE: REMOTE 621AA PB WITH  
SINGLE ALLEGION EL PANICS

DRAWING TYPE:

RISER DIAGRAM

DWG NO:

109550

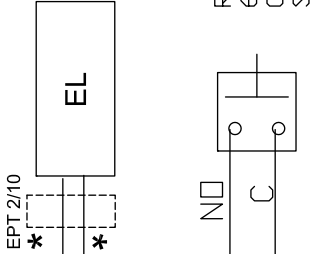
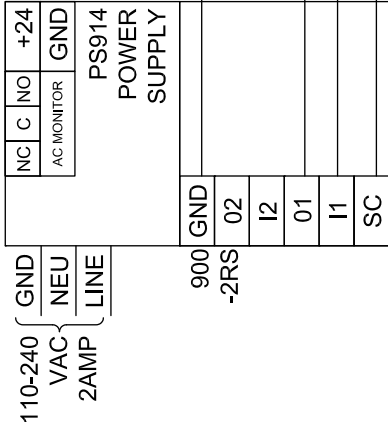
DRAWN/CHECKED BY:

B DOVE

REV:

C

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.

SET PS914 TO 24VDC

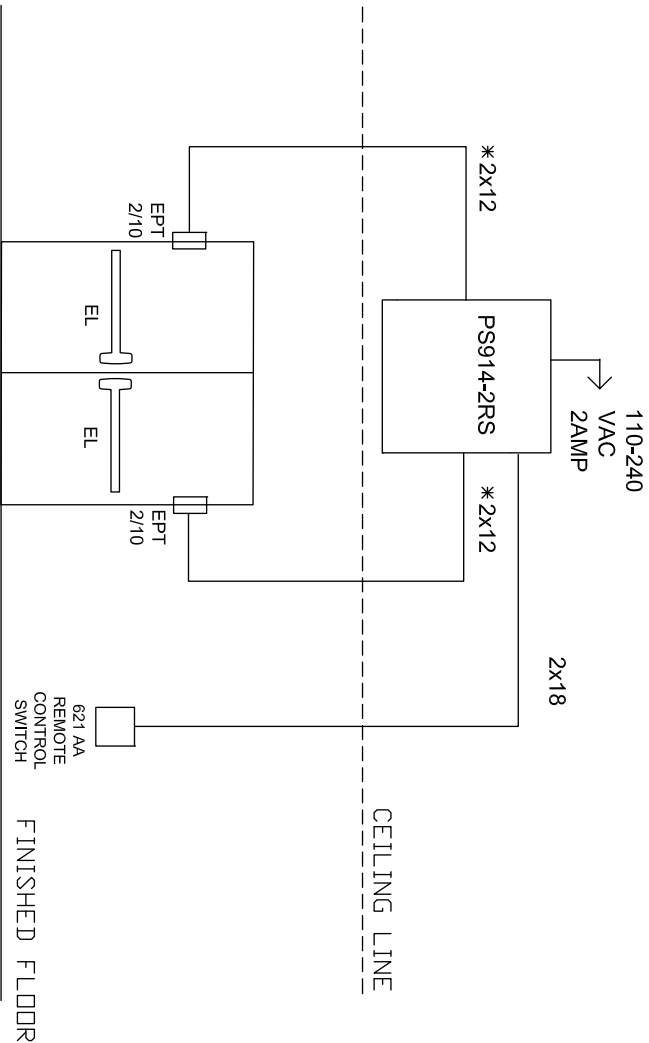
NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.

HARDWARE USED:	1 VDN DUPRIN DR FALCON EL PANIC DEVICES
	1 PS914-2RS POWER SUPPLY
TYPE	1 EPT POWER TRANSFERS
	621 AA REMOTE CONTROL SWITCH
REMOTE 621AA PB WITH SINGLE ALLEGION EL DEVICES	

OPERATION: REMOTE CONTROL 621AA PB TO SIGNAL SINGLE ELECTRIC PANIC BARS TO RETRACT FOR ENTRY.  THIS CONFIGURATION REPRESENTS A NON FIRE RATED OPENING.  IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS914 ENCLOSURE.	
DATE DRAWN	5-3-13
REVISION DATE	3-14-14
copyright 2013	

ALLEGION™	
TITLE: REMOTE 621AA PB WITH SINGLE ALLEGION EL PANICS	
DWG NO:	109550
REV	C
DRAWING TYPE	WIRING DIAGRAM
DRAWN/CHECKED BY:	B DOVE

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\* USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
\* USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914  
SET PS914 TO 24VDC

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.

3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.

HARDWARE USED:  
2 VON DUREN OR FALCON EL PANIC DEVICES  
1 PS914-2RS POWER SUPPLY  
2 EPT POWER TRANSFERS  
1 621 AA REMOTE CONTROL PUSH BUTTON

OPERATION:  
REMOTE CONTROL 621 AA PB TO SIGNAL PAIR EL ELECTRIC PANIC BAR TO RETRACT FOR ENTRY.  
THIS CONFIGURATION REPRESENTS A NON FIRE RATED OPENING.

IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS914 ENCLOSURE.

TYPE  
REMOTE 621AA PB WITH PAIR ALLEGION EL DEVICES

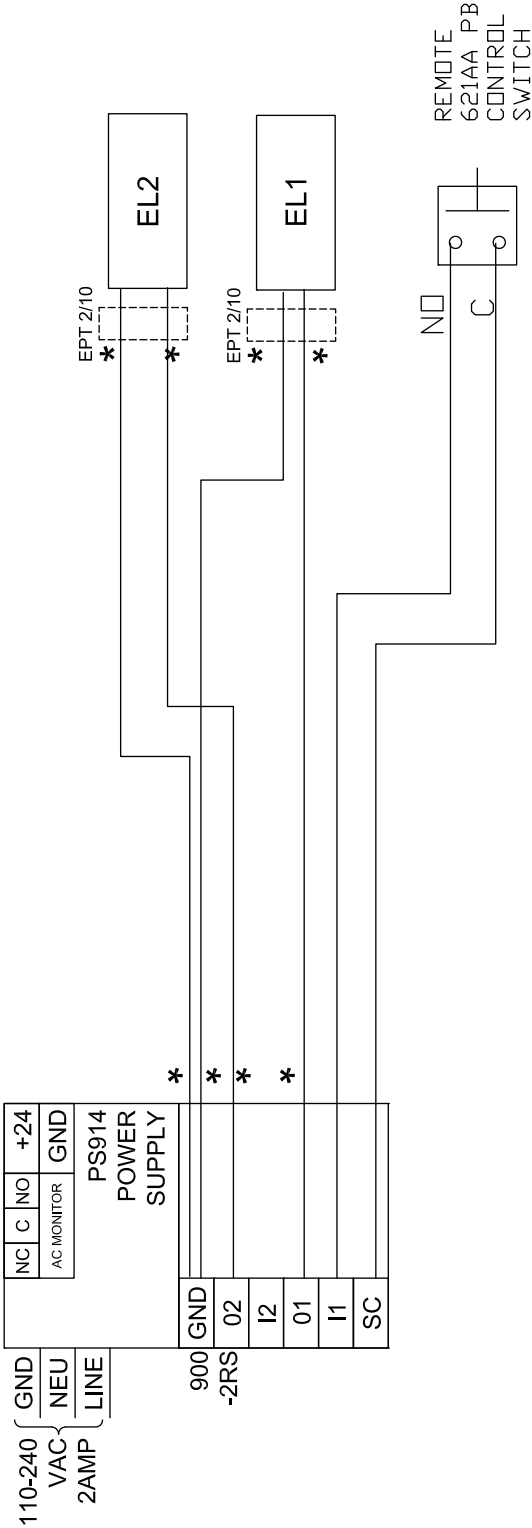
DATE DRAWN: 5-3-13  
REVISION DATE: 3-14-14  
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ALLEGION™

TITLE: REMOTE 621AA PB WITH PAIR ALLEGION EL PANICS

DRAWING TYPE: RISER DIAGRAM  
DWG NO: 109551  
REV: C  
DRAWN/CHECKED BY: B DOVE

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\*USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
\*USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914  
SET PS914 TO 24VDC

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD. MULTI-CONDUCTOR CORD CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.

HARDWARE USED: 2 VON DUHRIN DR FALCON FIRE RATED EL PANIC DEVICES 1 PS914-2RS POWER SUPPLY 2 EPT POWER TRANSFERS 621 AA REMOTE CONTROL SWITCH	
TYPE	REMOTE 621AA PB WITH PAIR NON FIRE RATED ALLEGION EL DEVICES

OPERATION: REMOTE CONTROL 621AA PB TO SIGNAL PAIR ELECTRIC PANIC BARS TO RETRACT FOR ENTRY.  THIS EXAMPLE IS A NON FIRE RATED APPLICATION.  IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS914 ENCLOSURE.	
DATE DRAWN	5-3-13
REVISION DATE	3-14-14
copyright 2013	



TITLE:

REMOTE 621AA PB WITH PAIR NON FIRE RATED ALLEGION EL PANICS

DWG NO:

109551

REV

C

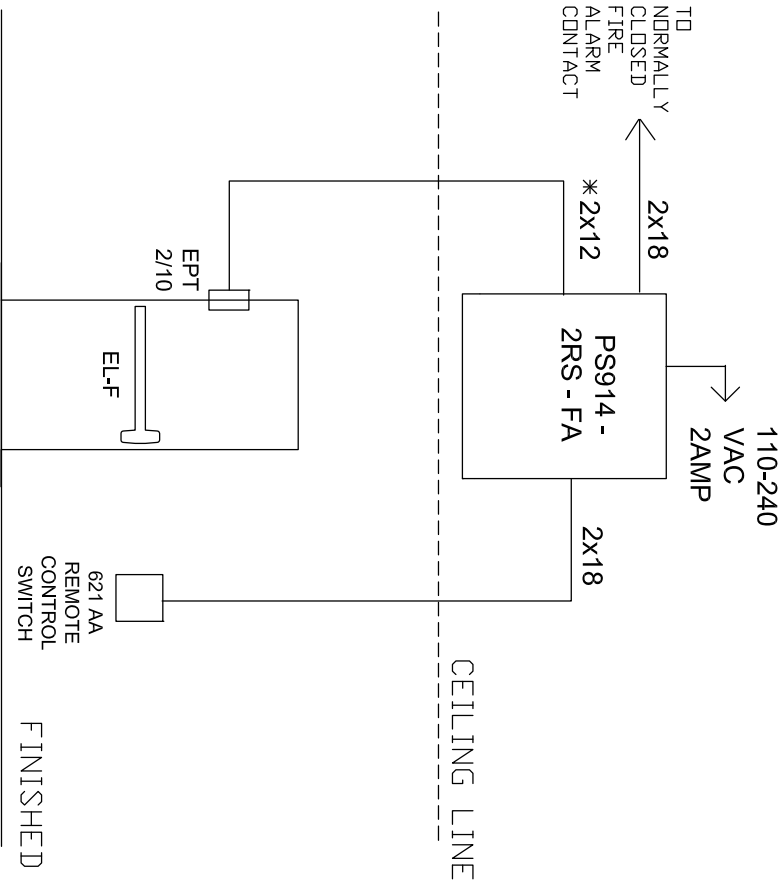
DRAWING TYPE

WIRING DIAGRAM

DRAWN BY:

B DOVE

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\*USE #12 GAUGE WIRE FOR DISTANCES  
UP TO 200' FROM EPT TO PS914  
\*USE #14 GAUGE WIRE FOR DISTANCES  
UP TO 100' FROM EPT TO PS914  
  
SETP PS914 TO 24VDC


NOTES:  
1) ALL LVD VOLTAGE WIRING TO BE STANDARD,  
MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL,  
STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION  
INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION  
OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM APP  
THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR  
DETAILS.

HARDWARE USED:  
1 VON DUPRIN OR FALCON FIRE RATED EL  
PANIC DEVICES  
1 PS914-2RS POWER SUPPLY  
1 EPT POWER TRANSFERS  
1 621 AA REMOTE CONTROL PUSH BUTTON  
1 FIRE ALARM CONTACT  
TYPE REMOTE 621AA PB WITH  
SINGLE FIRE RATED EL  
DEVICES

OPERATION:  
REMOTE CONTROL 621 AA PB TO SIGNAL SINGLE EL ELECTRIC  
PANIC BAR TO RETRACT FOR ENTRY.  
RELEASING 621 AA PUSH BUTTON OR FIRE ALARM TO CAUSE  
EL LATCHES TO EXTEND.  
IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN  
PS914 ENCLOSURE.

DATE DRAWN 5-3-13 REVISION DATE 5-3-13  
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ALLEGION™



TITLE:

REMOTE 621AA PB WITH SINGLE  
FIRE RATED EL PANICS

DRAWING TYPE:

RISER DIAGRAM

DWG NO:

109552

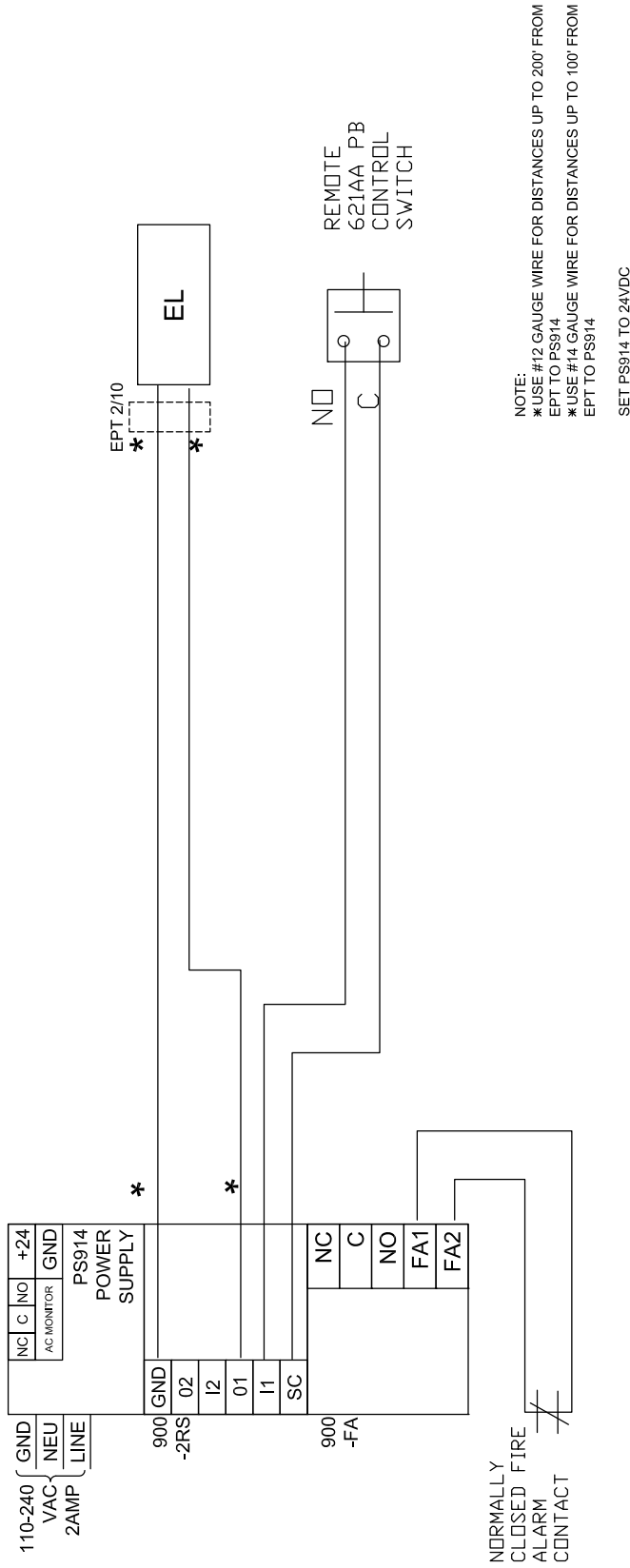
DRAWN/CHECKED BY:

B DOVE

REV:

A

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

OPERATION:  
REMOTE CONTROL 621AA PB TO SIGNAL SINGLE ELECTRIC PANIC BARS TO RETRACT FOR ENTRY.  
RELEASING 621AA PUSH BUTTON OR FIRE ALARM TO CAUSE EL LATCHES TO EXTEND.  
IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS914 ENCLOSURE.

DATE DRAWN: 5-3-13 REVISION DATE: 5-3-13  
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HARDWARE USED:  
1 VON DUPRIN OR FALCON FIRE RATED EL PANIC DEVICES  
1 PS914-2RS POWER SUPPLY  
1 EPT POWER TRANSFERS  
621 AA REMOTE CONTROL SWITCH  
1 FIRE ALARM CONTACT  
TYPE REMOTE 621AA PB WITH SINGLE FIRE RATED EL DEVICES

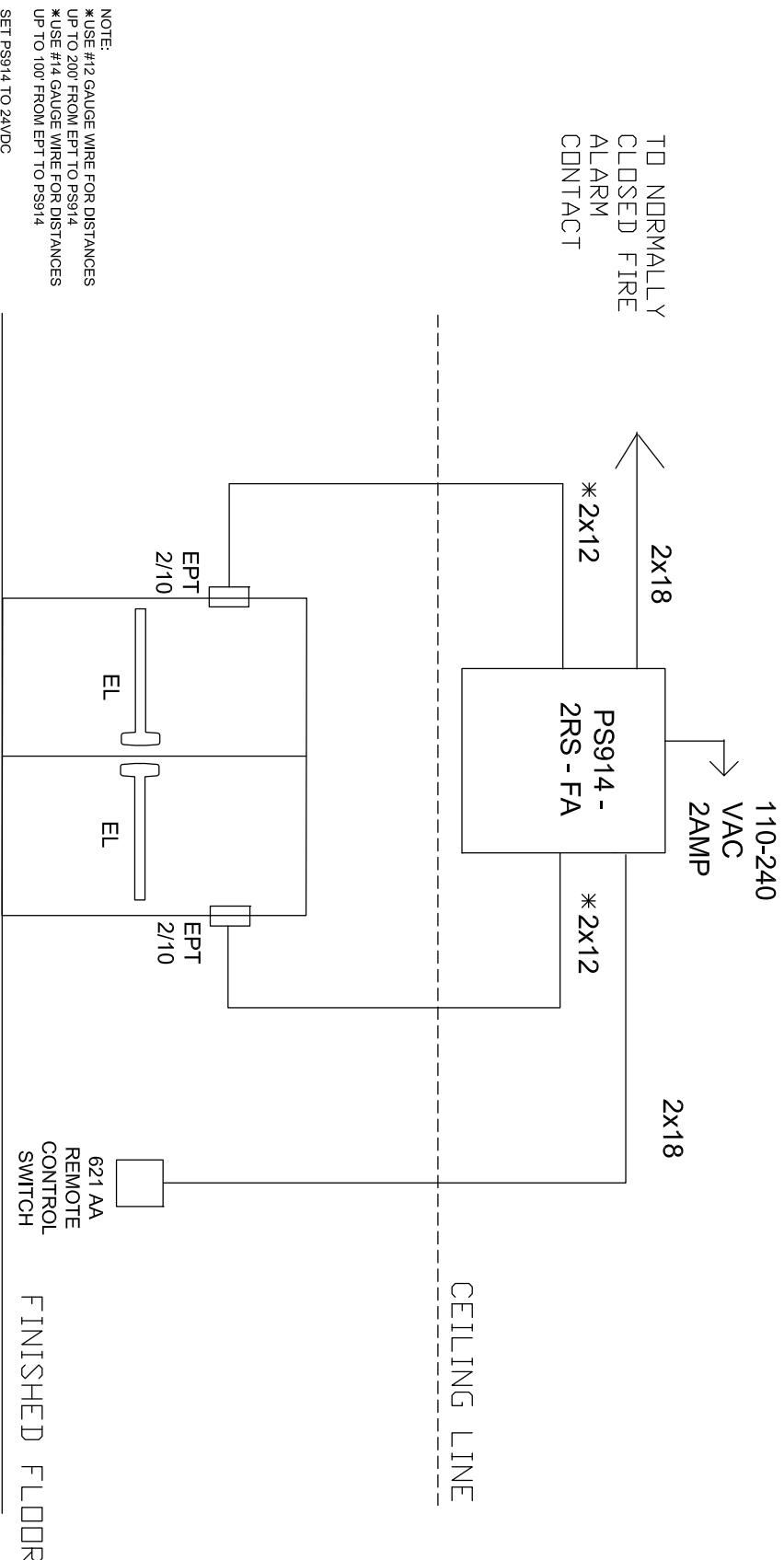
ALLEGION™

TITLE:  
REMOTE 621AA PB WITH SINGLE FIRE RATED EL PANICS

DWG NO: 109552  
DRAWN BY: B DOVE

REV: A

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.




NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:  
2 VON DUPREIN OR FALCON FIRE RATED EL PANIC DEVICES  
1 PS914-2RS-FA POWER SUPPLY  
2 EPT POWER TRANSFERS  
1 621 AA REMOTE CONTROL PUSH BUTTON  
1 FIRE ALARM CONTACT  
TYPE REMOTE 621AA PB WITH PAIR FIRE RATED EL DEVICES

OPERATION:  
REMOTE CONTROL 621 AA PB TO SIGNAL PAIR FIRE RATED EL ELECTRIC PANIC BAR TO RETRACT FOR ENTRY.  
RELEASING 621AA PUSH BUTTON OR FIRE ALARM WILL CAUSE EL LATCHES TO EXTEND.  
IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS914 ENCLOSURE.  
DATE DRAWN 5-3-13  
REVISION DATE 5-3-13  
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ALLEGION™



TITLE:  
REMOTE 621AA PB WITH PAIR  
FIRE RATED EL PANICS

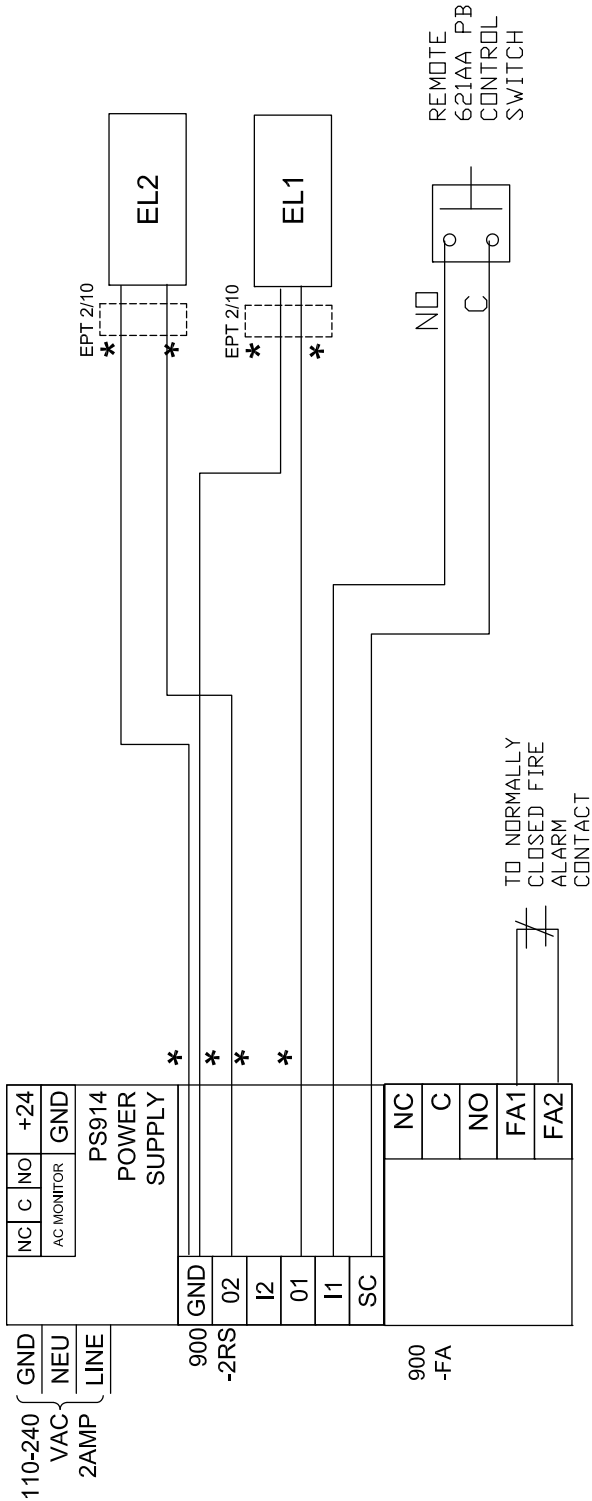
DRAWING TYPE:  
RISER DIAGRAM

DWG NO.:  
109553

REV:  
A



THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\* USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
\* USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914  
SET PS914 TO 24VDC

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:

- 2 VON DUPRIN DR FALCON FIRE RATED EL PANIC DEVICES
- 1 PS914-2RS-FA POWER SUPPLY
- 2 EPT POWER TRANSFERS
- 621 AA REMOTE CONTROL SWITCH
- 1 FIRE ALARM CONTACT

TYPE REMOTE 621AA PB WITH PAIR FIRE RATED EL DEVICES

OPERATION:  
REMOTE CONTROL 621AA PB TO SIGNAL PAIR FIRE RATED ELECTRIC PANIC BARS TO RETRACT FOR ENTRY.  
RELEASING 621AA PUSH BUTTON OR FIRE ALARM TO CAUSE EL LATCHES TO EXTEND.

IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS914 ENCLOSURE.

DATE DRAWN: 5-3-13 REVISION DATES: 5-3-13

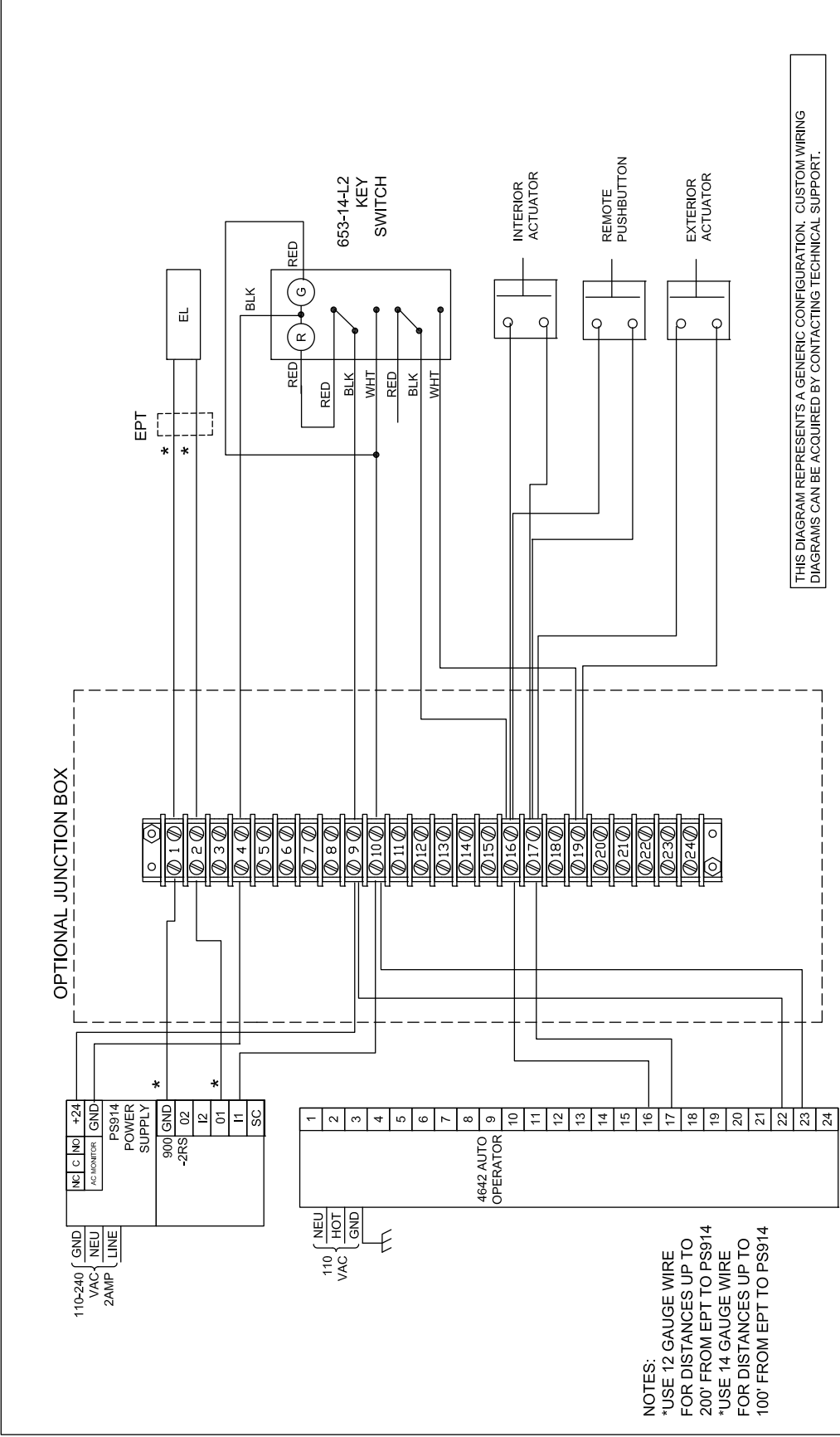
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TITLE: REMOTE 621AA PB WITH PAIR FIRE RATED EL PANICS

DWG NO: 109553  
DRAWING TYPE: WIRING DIAGRAM  
REV: A  
DRAWN BY: B DDVE





**ALLEGION™**

PS914-2RS EL 4640 2XPB 653-14-L2 X  
REMOTE PB

DWG NO: 104970  
REV: D

OPERATION:  
DOOR NORMALLY CLOSED & LOCKED.  
KEYSWITCH RETRACTS LATCH & ENABLES EXTERIOR ACTUATOR.  
INTERIOR & REMOTE PUSHBUTTONS ARE ALWAYS ACTIVE TO RETRACT THE ELECTRIC LATCH & SWING THE DOOR.  
FREE EGRESS AT ALL TIMES.

DATE DRAWN: 03-26-13  
DRAWN BY: B DOVE

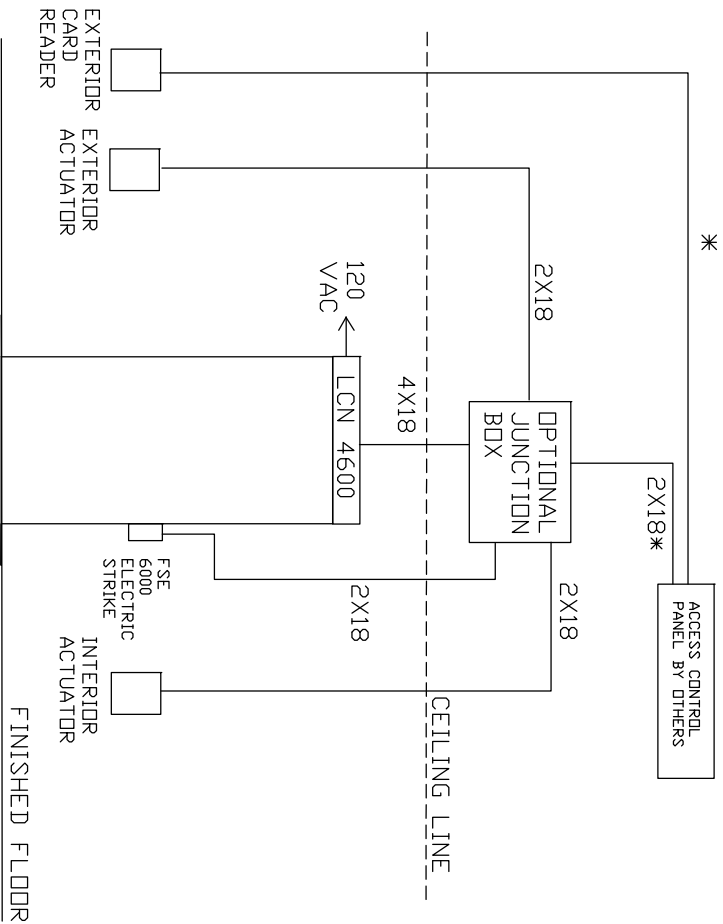
REVISION DATE: 04-15-14  
APPROVED BY: MH

HARDWARE USED:  
1 - PS914-2RS  
1 - 653-14-L2 KEYSWITCH  
1 - LCN 4600 AUTO OPERATOR  
2 - ACTUATORS  
1 - PUSHBUTTON  
1 - EL PANIC DEVICE  
1 - EPT  
1 - OPTIONAL JUNCTION BOX

TYPE: DOUBLE DOORS

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD. MULTICONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
\* CONSULT ACCESS CONTROL PANEL AND CARD READER PROVIDER TO DETERMINE CONDUCTOR COUNT AND WIRE SIZE.

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:  
1 LCN 4600 AUTO OPERATOR  
2 ACTUATORS  
1 EXTERIOR CARD READER/ACP BY OTHERS  
1 VD FSE 6000 ELECTRIC STRIKE  
1 OPTIONAL JUNCTION BOX

OPERATION:  
DOOR NORMALLY CLOSED & LOCKED. VALID ACCESS CONTROL READ ENABLES EXTERIOR ACTUATOR. PRESSING EITHER ACTUATOR UNLOCKS ELECTRIC STRIKE AND OPENS DOOR. FREE EGRESS AT ALL TIMES.

TITLE:  
SINGLE LCN 4600 AD 6000 FSE ELECTRIC STRIKE X 2 ACTUATORS X CARD READER/ACP

ALLEGION™

DRAWING TYPE: RISER

DWG NO: 104972

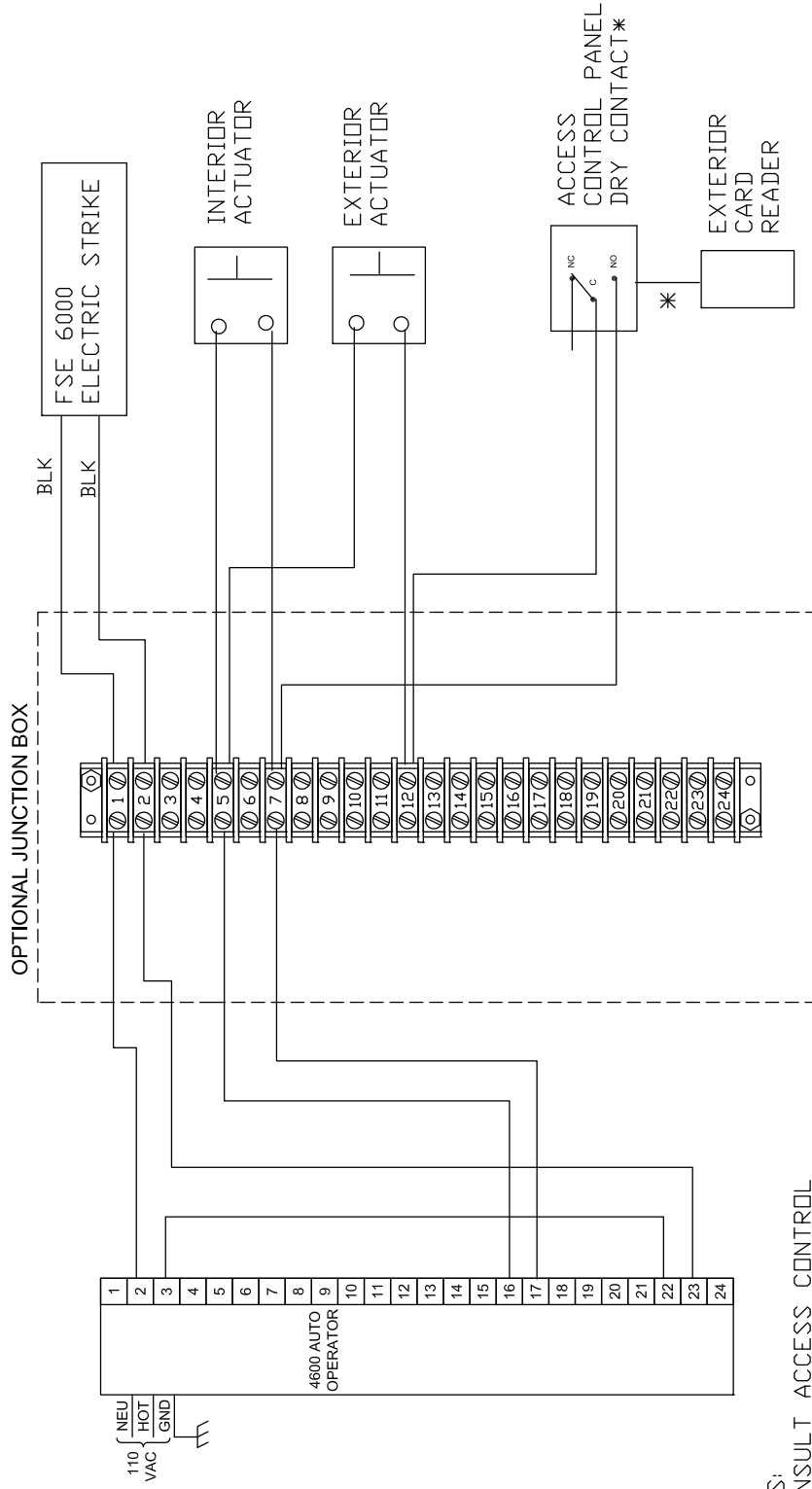
DRAWN BY: B DOVE

REVISION DATE: 03-27-13

APPROVED BY: MH

REV: D

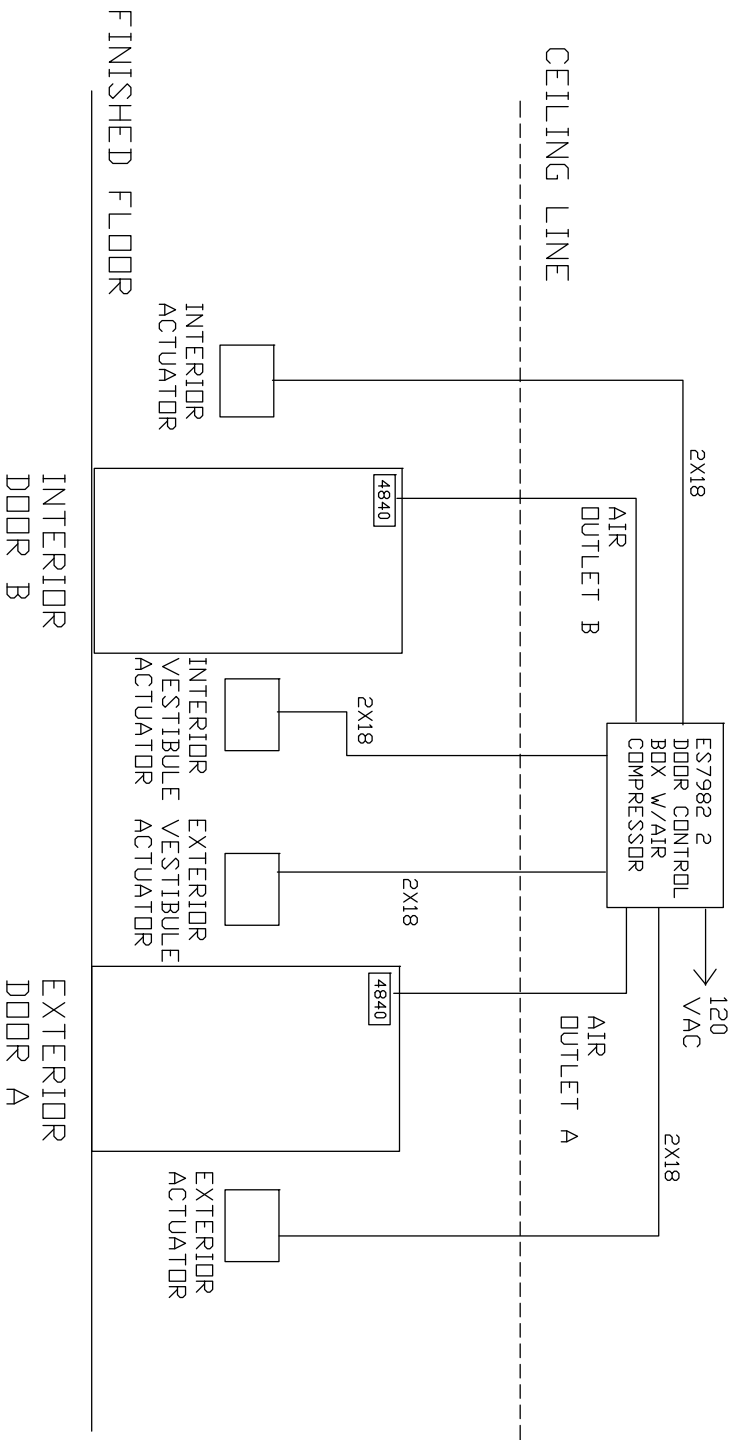
THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
\* CONSULT ACCESS CONTROL PANEL AND CARD READER PROVIDER TO DETERMINE CONDUCTOR COUNT AND WIRE SIZE.

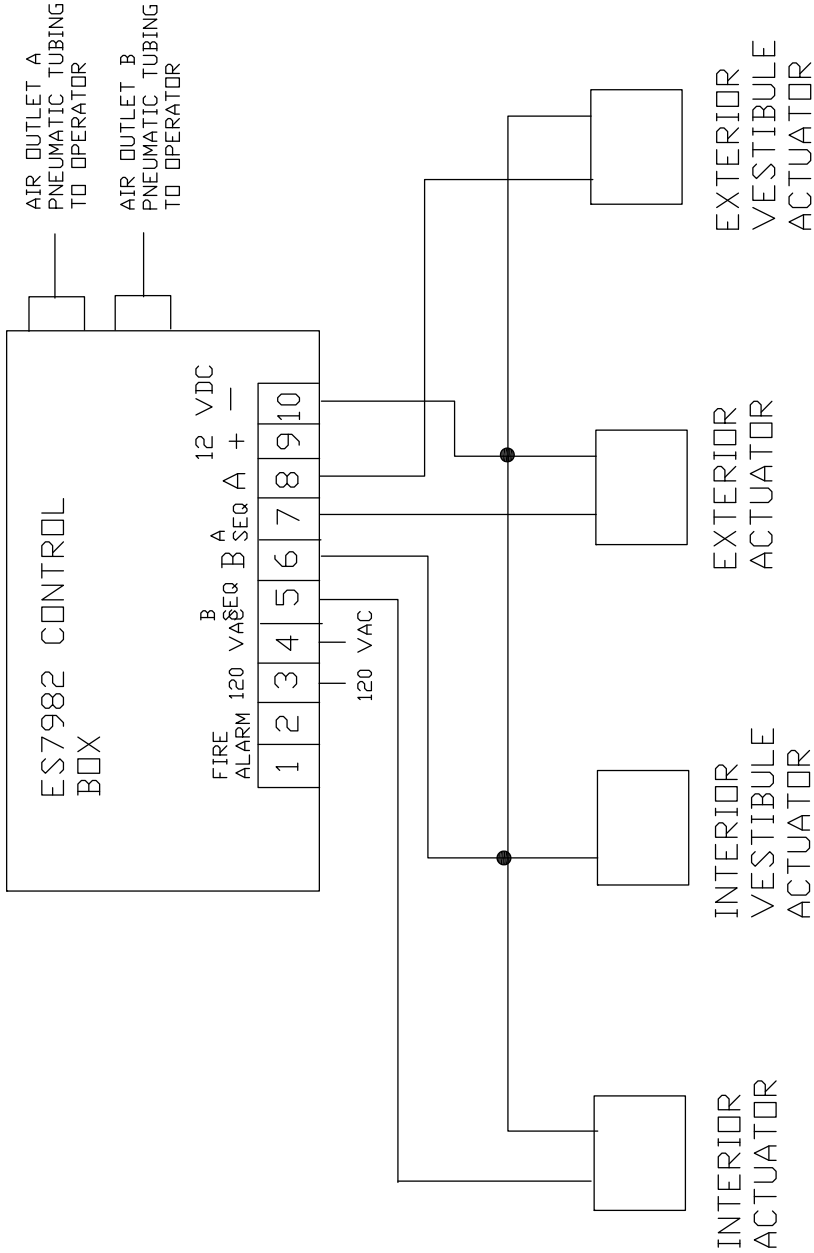
<p>NOTES:</p> <p>1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.</p> <p>2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.</p> <p>3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.</p> <p>4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.</p> <p>5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.</p>	<p>HARDWARE USED:</p> <p>1 LCN 4600 AUTO OPERATOR</p> <p>2 ACTUATORS</p> <p>1 EXTERIOR CARD READER/ACP BY OTHERS</p> <p>1 VD FSE 6000 ELECTRIC STRIKE</p> <p>1 OPTIONAL JUNCTION BOX</p> <p>TYPE</p> <p>SINGLE DOOR</p>	<p>OPERATION:</p> <p>DOOR NORMALLY CLOSED &amp; LOCKED.</p> <p>VALID ACCESS CONTROL READ ENABLES EXTERIOR ACTUATOR.</p> <p>PRESSING EITHER ACTUATOR UNLOCKS ELECTRIC STRIKE AND OPENS DOOR.</p> <p>FREE EGRESS AT ALL TIMES.</p> <p>DATE DRAWN: 03-27-13</p> <p>REVISION DATE: 04-16-14</p> <p>DRAWN BY: B DOVE</p> <p>APPROVED BY: MH</p>	<p>ALLEGION™</p> <p>TITLE: SINGLE LCN 4600 AD 6000 FSE ELECTRIC STRIKE X 2 ACTUATORS X CARD READER/ACP</p> <p>DRAWING TYPE: WIRING</p> <p>DWG NO: 104972</p> <p>DRAWN/CHECKED BY: B DOVE</p> <p>REV: D</p>
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THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



<b>NOTES:</b> 1) LOW VOLTAGE WIRING TO BE STANDARD. 2) MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 3) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 4) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 5) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.		<b>HARDWARE USED:</b> 1 - ES7982 CONTROL BOX 4 - 4840 ACTUATORS 2 4840 AUTO OPERATORS		<b>OPERATION:</b> DOORS NORMALLY CLOSED. PUSHING INTERIOR VESTIBULE ACTUATOR OPENS INTERIOR DOOR. PUSHING EXTERIOR VESTIBULE ACTUATOR OPENS EXTERIOR DOOR. PUSHING INTERIOR ACTUATOR OPENS INTERIOR DOOR & THEN EXTERIOR DOOR IN SEQUENCE. PUSHING EXTERIOR ACTUATOR OPENS EXTERIOR DOOR & THEN FREE EGRESS AT ALL TIMES.		<b>ALLEGION™</b>	
<b>TYPE</b> 2 SINGLE DOORS		<b>DATE DRAWN</b> 03-26-13		<b>REVISION DATE</b> 04-16-14		<b>TITLE</b> 2 SINGLE DOORS ES7982 X 2 4840 ACTUATORS	
<b>DRAWN BY</b> B DOVE		<b>APPROVED BY</b> MH		<b>DRAWING TYPE</b> RISER		<b>DWG NO.</b> 104968	
						<b>REV</b> D	

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



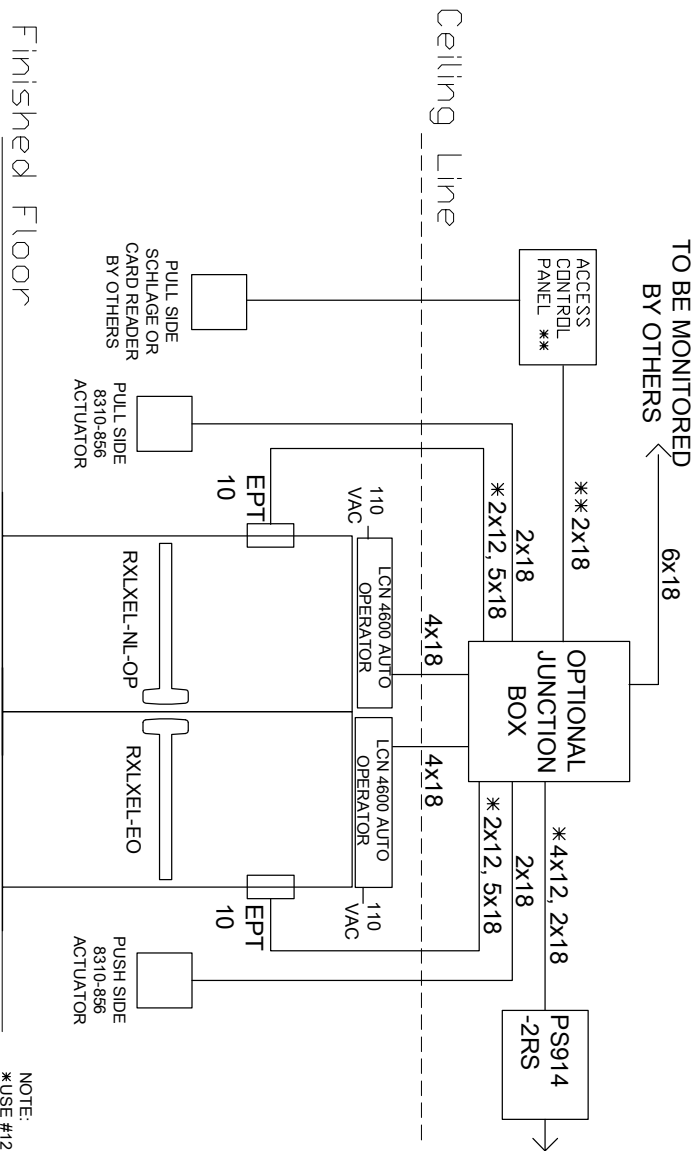
- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD. MULTI-CONDUCTOR CORD CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:	
1 - ES7982 CONTROL BOX	
4 - 4840 ACTUATORS	
2 4840 AUTO OPERATORS	
TYPE	2 SINGLE DOORS

OPERATION: DOORS NORMALLY CLOSED. PUSHING INTERIOR VESTIBULE ACTUATOR OPENS INTERIOR DOOR. PUSHING EXTERIOR VESTIBULE ACTUATOR OPENS EXTERIOR DOOR. PUSHING INTERIOR ACTUATOR OPENS INTERIOR DOOR & THEN EXTERIOR DOOR IN SEQUENCE. PUSHING EXTERIOR ACTUATOR OPENS EXTERIOR DOOR & THEN FREE EGRESS AT ALL TIMES.	
DATE DRAWN	03-26-13
REVISION DATE	04-16-14
DRAWN BY:	B DOVE
APPROVED BY:	MH

	
TITLE	2 SINGLE DOORS ES7982 X 2 4840 ACTUATORS
DRAWING TYPE:	WIRING
DWG NO:	104968
REV	D
DRAWN/CHECKED BY:	B DOVE

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\*USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
\*USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914  
\*\*ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION  
OPTIONAL JUNCTION BOX IS AVAILABLE FROM VON DUPRIN AS A JB7

NOTES:  
1) ALL LVDV VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) \*\* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:  
1 RXLXL ED PANIC  
1 RXLXL-NL-OP PANIC  
2 EPT 10  
2 8310-856 LCN ACTUATORS  
2 4600 AUTO OPERATOR  
1 SCHLAGE OR CARD READER BD WITH ACP BD

OPERATION:  
PUSH SIDE 8310-856 ACTUATOR TO RETRACT THE ELECTRIC PANIC BARS AND OPEN THE LCN 4600 AUTO OPERATORS.  
SCHLAGE OR CARD READER BY OTHERS TO SIGNAL EL LATCH RETRACTION AND ENABLE EXTERIOR 8310-856 ACTUATOR  
PULL SIDE 8310-856 ACTUATOR TO RETRACT THE ELECTRIC PANIC BARS WHEN ENABLED BY CARD READER AND ACCESS CONTROL PANEL  
REQUEST EXT SWITCH RX TO BE MONITORED BY OTHERS.

TYPE

DATE DRAWN

3-26-13

REVISION DATE

07-03-17

**ALLEGION™**

TITLE  
RXLXL PAIR WITH LCN 4600  
AD AND PS914-2RS

DRAWING TYPE

RISER DIAGRAM

DWG NO: 109463

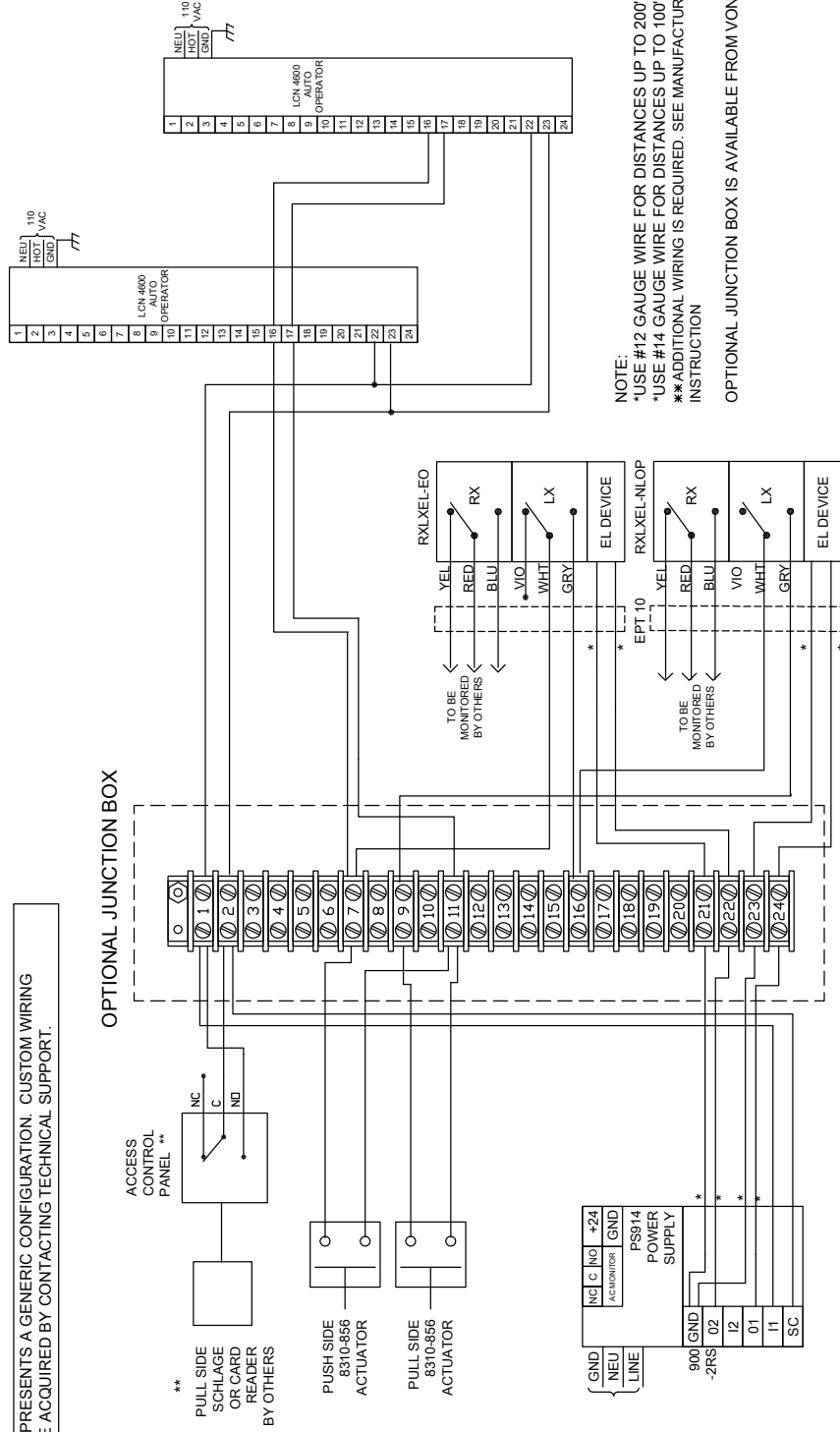
DRAWN/CHECKED BY  
B DDVE/D BOLLENGIER

REV

C



THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\*USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
\*USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914  
\*\*ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION  
OPTIONAL JUNCTION BOX IS AVAILABLE FROM VON DUPRIN AS A JB7

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD. MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) \*\* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:  
1 RXLXEL EO PANIC  
1 RXLXEL-NL-OP PANIC  
2 EPT 10  
2 8310-856 LCN ACTUATORS  
2 4600 AUTO OPERATOR  
1 SCHLAGE OR CARD READER BO WITH ACP BO

OPERATION:  
PUSH SIDE 8310-856 ACTUATOR TO RETRACT THE ELECTRIC PANIC BARS AND OPEN THE LCN 4600 AUTO OPERATOR.  
SCHLAGE OR CARD READER BY OTHERS TO SIGNAL EL LATCH RETRACTION AND ENABLE EXTERIOR 8310-856 ACTUATOR  
PULL SIDE 8310-856 ACTUATOR TO RETRACT THE ELECTRIC PANIC BARS WHEN ENABLED BY CARD READER AND ACCESS CONTROL PANEL  
REQUEST EXIT SWITCH RX TO BE MONITORED BY OTHERS.

DATE DRAWN: 3-26-13 REVISION DATE: 07-03-17

TYPE



TITLE:  
RXEL PAIR WITH LCN 4600 AO AND  
PS914-2RS

DRAWING TYPE:  
WIRING DIAGRAM

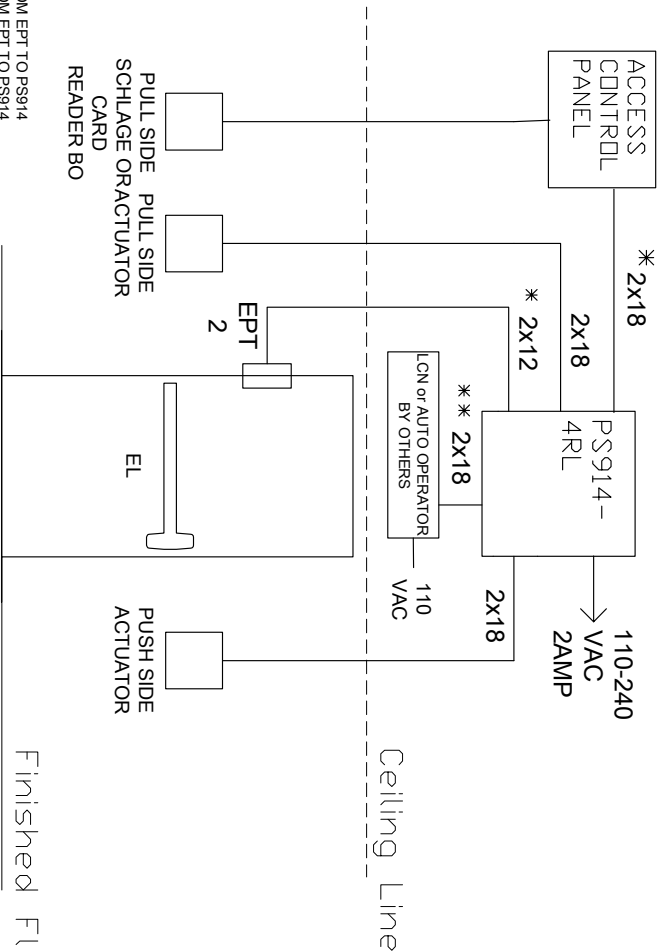
DWG NO.: 109463  
DRAWING CHECKED BY:  
B DOVEID BOLLENGIER

REV  
C





THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\*USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
\*USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914  
\*\*ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.

4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:		OPERATION:	
1 VENDOR/PRN OR FALCON EL PANIC DEVICE		PUSH SIDE ACTUATOR TO RETRACT THE ELECTRIC PANIC BAR AND OPEN THE DOOR.	
1 SCHLAGE OR CARD READER BY OTHERS WITH ACP		PULL SIDE SCHLAGE OR CARD READER BO TO RETRACT THE ELECTRIC PANIC BAR AND	
2 ACTUATORS		ENABLE THE PULL SIDE ACTUATOR TO OPEN THE DOOR.	
1 PS914-4RL POWER SUPPLY		THIS CONFIGURATION REPRESENTS A NON FIRE RATED OPENING.	
1 EPT POWER TRANSFER		IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN THE PS914 ENCLOSURE.	
1 LCN OR AUTO OPERATOR BY OTHERS			

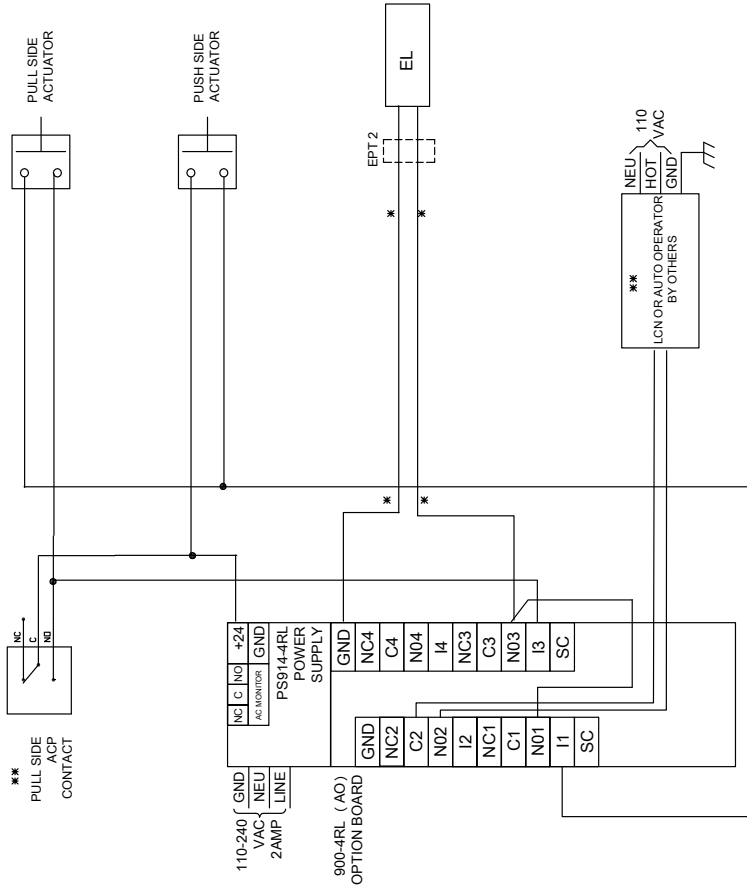
TYPE	DATE DRAWN	REVISION	DATE
IR EL PANIC WITH AO	3-20-13	07-03-17	



TITLE: PS914-4RL AS AO WITH EL PANIC

DRAWING TYPE	DWG NO.	DRAWING CHECKED BY	REV
RISER DIAGRAM	109441	BRENDA DOVE	D

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



SET 900-4RL CARD:  
SW2 PACK-SW1 OFF AND SW2 ON.  
SW1 PACK-SW1 ON, SW2 OFF, SW3 AND SW4 OFF AND OTHER SWITCHES  
AS REQUIRED FOR INSTALLATION. SEE 900-4RL INSTALLATION  
INSTRUCTIONS FOR DETAILS.

PROGRAM C2 AND NO2 FOR DRY CONTACT.

SET ALL OTHER SWITCHES AS REQUIRED FOR INSTALLATION

NOTE:  
■ USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914  
■ USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914  
■ ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:  
1 VONDUPRIN OR FALCON EL PANIC DEVICE  
1 SCHLAGE OR CARD READER BY OTHERS WITH ACP  
2 ACTUATORS  
1 PS914-4RL POWER SUPPLY  
1 EPT POWER TRANSFER  
1 LCN OR AUTO OPERATOR BY OTHERS

TYPE  
IR EL PANIC  
WITH AD

ALLEGION™

PS902-4RL AS AO WITH QEL PANIC

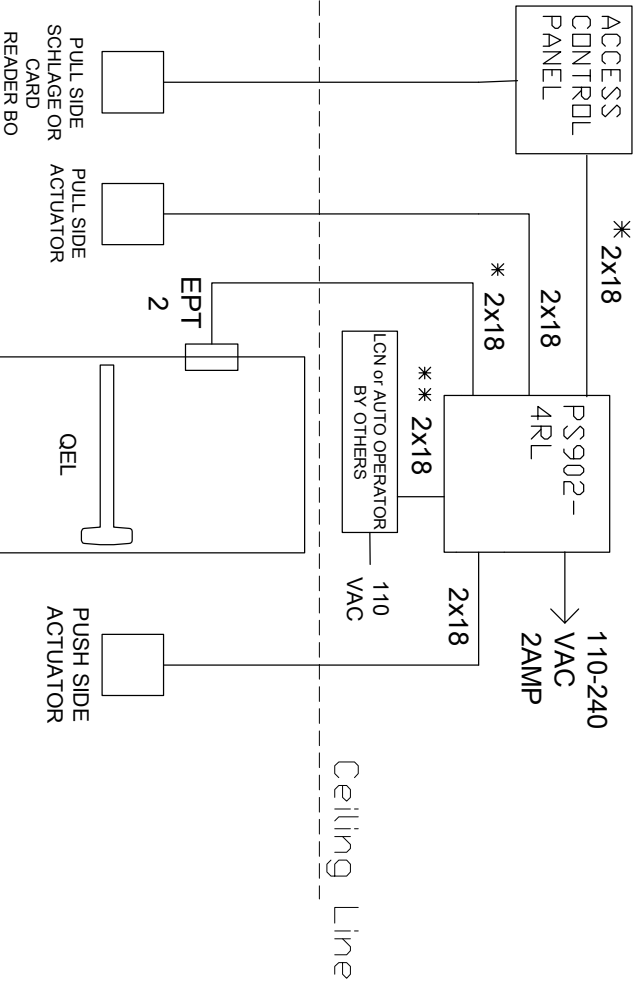
TITLE  
DRAWING TYPE: WIRING DIAGRAM  
DWG NO: 021618-2R  
REV  
DRAWN BY: B DOWE  
REV  
A

OPERATION:  
PUSH SIDE ACTUATOR TO RETRACT THE ELECTRIC PANIC BAR AND OPEN THE DOOR.  
PULL SIDE SCHLAGE OR CARD READER BO TO RETRACT THE ELECTRIC PANIC BAR AND  
ENABLE THE PULL SIDE ACTUATOR TO OPEN THE DOOR.

THIS CONFIGURATION REPRESENTS A NON FIRE RATED OPENING.  
IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN THE PS914 ENCLOSURE.

DATE DRAWN: 3-20-13  
REVISION: 07-03-17

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



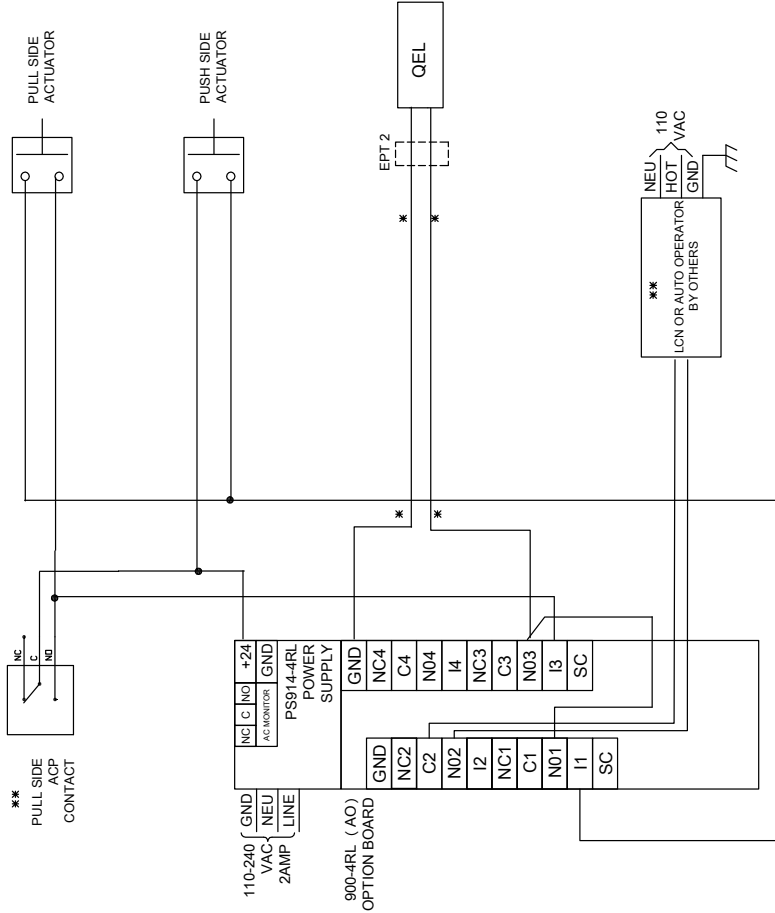
NOTE:  
 \*USE #18 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS902  
 \*USE #14 GAUGE WIRE FOR DISTANCES UP TO 500' FROM EPT TO PS902  
 \*\*ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION

NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) * CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.	HARDWARE USED: 1 VENDOR/PRIN QEL PANIC DEVICE 1 SCHLAGE OR CARD READER BY OTHERS WITH ACP 2 ACTUATORS 1 PS902-4RL POWER SUPPLY 1 EPT POWER TRANSFER 1 LCN OR AUTO OPERATOR BY OTHERS	OPERATION: PUSH SIDE ACTUATOR TO RETRACT THE QUIETELECTRIC PANIC BAR AND OPEN THE DOOR. PULL SIDE SCHLAGE OR CARD READER BO TO RETRACT THE ELECTRIC PANIC BAR AND ENABLE THE PULL SIDE ACTUATOR TO OPEN THE DOOR. THIS CONFIGURATION REPRESENTS A NON-FIRE RATED OPENING. IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN THE PS902 ENCLOSURE.	<div> <div>TITLE</div> <div>PS902-4RL AS AO WITH QEL PANIC</div> </div> <div> <div>DRAWING TYPE:</div> <div>RISER DIAGRAM</div> </div> <div> <div>DWG NO.</div> <div>112132R</div> </div> <div> <div>DRAWN/CHECKED BY:</div> <div>BRENDA DOVE</div> </div> <div> <div>REV</div> <div>A</div> </div>
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QEL PANIC WITH AD

DATE DRAWN 02-16-18 REVISION DATE 02-16-18

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



SET 900-4RL CARD:  
SW2 PACK-SW1 OFF AND SW2 ON.  
SW1 PACK-SW1 ON, SW2 OFF, SW3 AND SW4 OFF AND OTHER SWITCHES  
AS REQUIRED FOR INSTALLATION. SEE 900-4RL INSTALLATION  
INSTRUCTIONS FOR DETAILS.

PROGRAM C2 AND NO2 FOR DRY CONTACT.

SET ALL OTHER SWITCHES AS REQUIRED FOR INSTALLATION

NOTE:  
\* USE #18 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS902  
\* USE #14 GAUGE WIRE FOR DISTANCES UP TO 500' FROM EPT TO PS902  
\*\* ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:

- 1 VONDUKIN QEL PANIC DEVICE
- 1 SCHLAGE OR CARD READER BY OTHERS WITH ACP
- 2 ACTUATORS
- 1 PS902-4RL POWER SUPPLY
- 1 EPT POWER TRANSFER
- 1 LCN OR AUTO OPERATOR BY OTHERS

OPERATION:

PUSH SIDE ACTUATOR TO RETRACT THE QUIET ELECTRIC PANIC BAR AND OPEN THE DOOR.

PULL SIDE SCHLAGE OR CARD READER TO RETRACT THE ELECTRIC PANIC BAR AND ENABLE THE PULL SIDE ACTUATOR TO OPEN THE DOOR.

THIS CONFIGURATION REPRESENTS A NON FIRE RATED OPENING.

IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN THE PS902 ENCLOSURE.



ALLEGION™

TITLE

PS902-4RL AS AO WITH QEL PANIC

DRAWING TYPE

WIRING DIAGRAM

DWG NO:

112132W

REV

A

DRAWN BY:

B DOVE

DATE

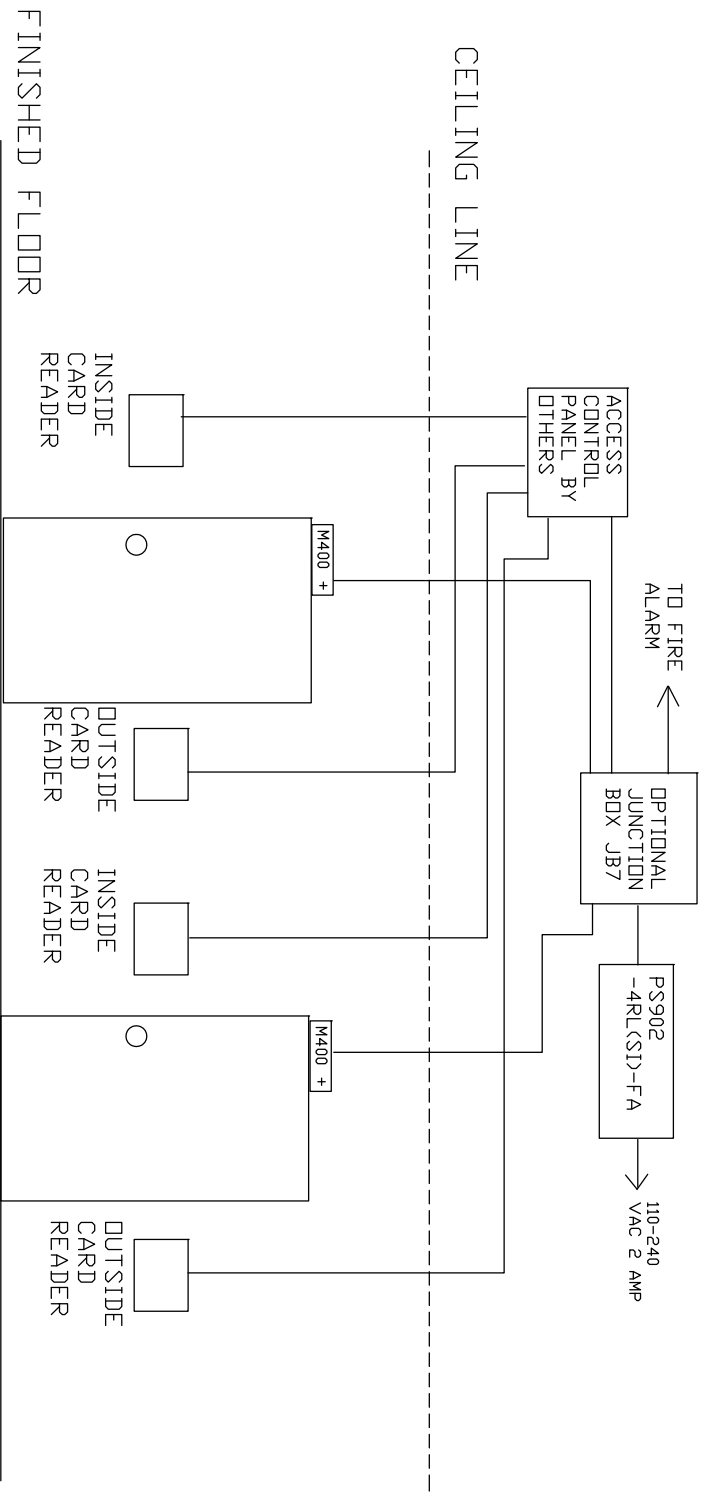
02-16-18

REVISION

DATE

02-16-18


THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED: 1 - PS902-4RL-FA 2 - M400 PLUS MAGLOCK 4 - CARDREADER 7 ACCESS CONTROL PANEL BY OTHERS 1 - FIRE ALARM CONTACT BY OTHERS 1 - OPTIONAL JUNCTION BOX, JB7 BY VON DUPRIN		OPERATION: DOOR 1 & 2 SHOWN LOCKED & CLOSED. UNLOCKING DOOR 1 PREVENTS DOOR 2 FROM UNLOCKING UNTIL DOOR 1 IS CLOSED. UNLOCKING DOOR 2 PREVENTS DOOR 1 FROM UNLOCKING UNTIL DOOR 2 IS CLOSED FIRE ALARM UNLOCKS BOTH DOORS.	
TYPE 2 DOOR SECURITY INTERLOCK	DATE DRAWN 03-26-13	REVISION DATE 04-16-14	
	DRAWN BY B DOVE	APPROVED BY MH	

ALLEGION™



TITLE:  
2 DOORS PS902-4RL(SD)-fa X 2 M400 PLUS MAGLOCKS X 2 CARD READERS

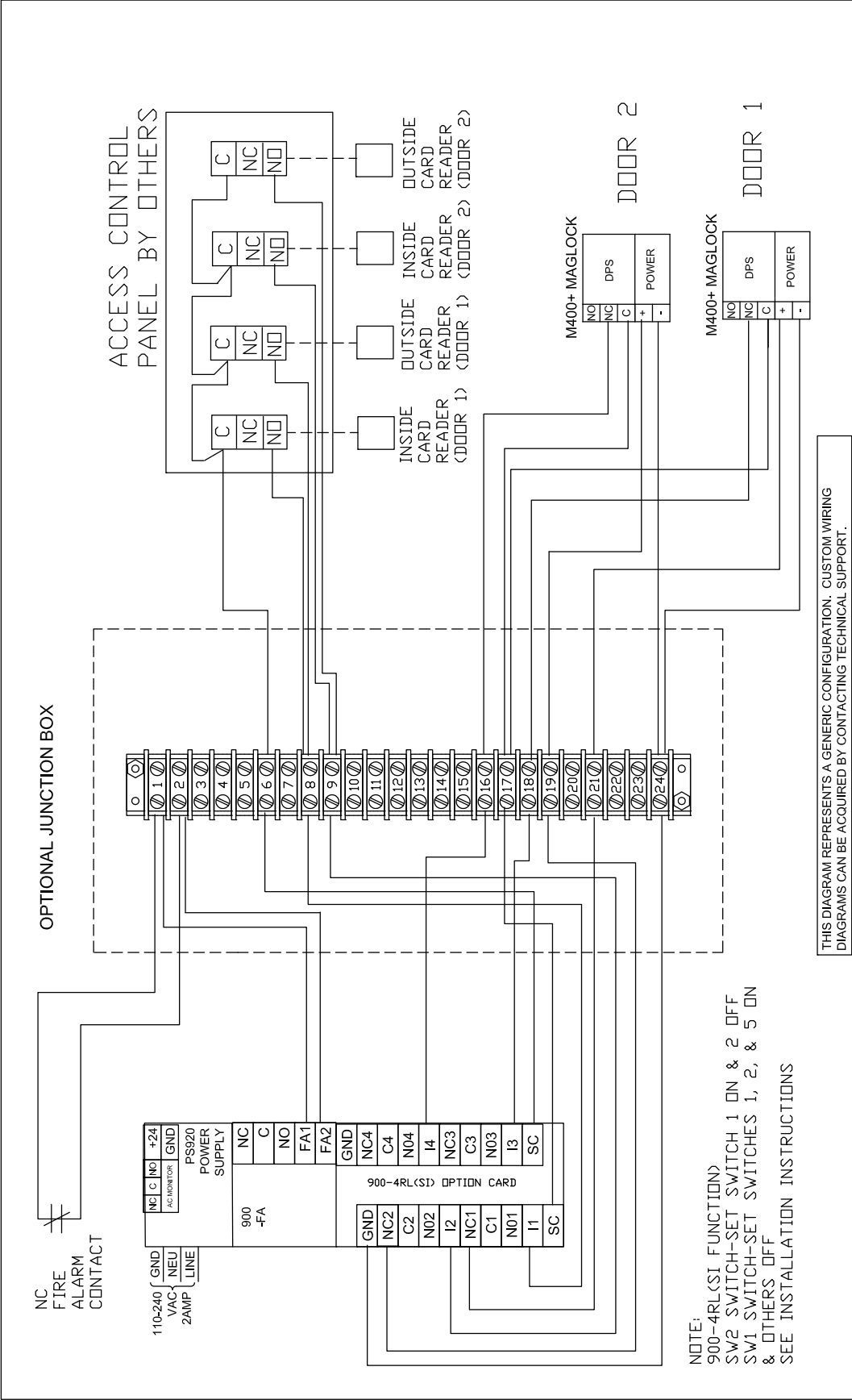
DRAWING TYPE  
RISER

DWG NO.: 104967

DESIGNED BY: B DOVE

REV  
D





NOTES:

1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.

2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.

3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.

4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.

5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:

1 - PS902-4RL-FA

2 - M400 PLUS MAGLOCK

4 - CARDREADER 7 ACCESS CONTROL PANEL BY OTHERS

1 - FIRE ALARM CONTACT BY OTHERS

1 - OPTIONAL JUNCTION BOX, JB7 BY VON DUPRIN

OPERATION:

DOOR 1 & 2 SHOWN LOCKED & CLOSED.

UNLOCKING DOOR 1 PREVENTS DOOR 2 FROM UNLOCKING UNTIL DOOR 1 IS CLOSED.

UNLOCKING DOOR 2 PREVENTS DOOR 1 FROM UNLOCKING UNTIL DOOR 2 IS CLOSED

FIRE ALARM UNLOCKS BOTH DOORS.

DATE DRAWN: 03-26-13

REVISION DATE: 04-16-14

DRAWN BY: B DOVE

APPROVED BY: MH

TYPE:

2 DOOR SECURITY INTERLOCK

ALLEGION™

TITLE:

2 DOORS PS902-4RL(SI)-fa X 2 M400 PLUS MAGLOCKS X 2 CARD READERS

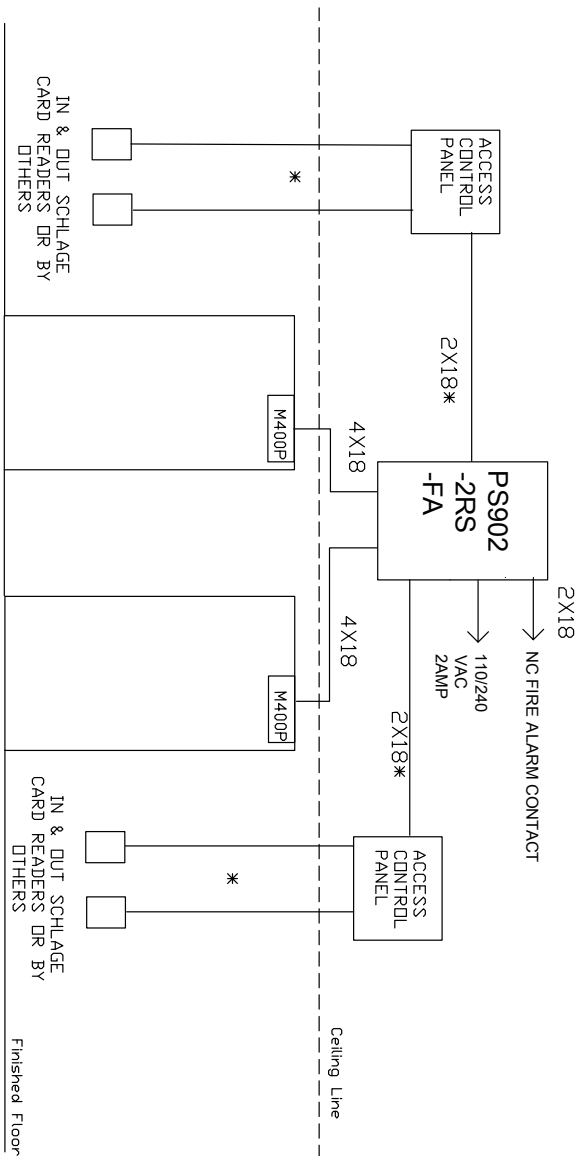
DWG NO: 104967

DRAWING TYPE: WIRING

DRAWING CHECKED BY: B DOVE

REV: D

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



VERIFY OPERATION  
ACCEPTABLE TO LOCAL AHJ.

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

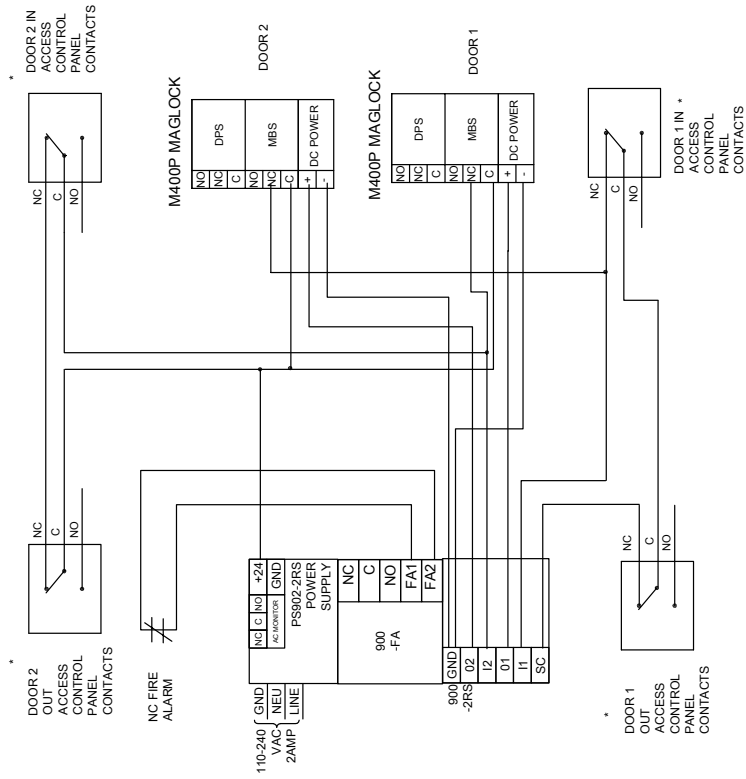
Hardware Used	2 M400P MAGNETIC LOCKS PS902-2RS-FA POWER SUPPLY 4 SCHLAGE CARD READERS OR BY OTHERS AND ACP FIRE ALARM CONTACT BY OTHERS
Type	SECURITY INTERLOCK 2 DOOR

OPERATION:	SECURITY INTERLOCK - BOTH DOORS NORMALLY LOCKED. PRESENTING A VALID CREDENTIAL TO THE CARD READERS WILL RELEASE DOOR IF OTHER DOOR IS CLOSED AND LOCKED. OPPOSITE DOOR REMAINS LOCKED AS LONG AS OTHER DOOR REMAINS UNLOCKED. IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE. FIRE ALARM TO RELEASE BOTH M400 MAG LOCKS.
Date Drawn	3-13-13
Revision	07-03-17

TITLE		
2 Door PS902-2RS-FA x 2 M400 Plus Maglocks x 4 Card Readers		
DRAWING TYPE:	DWG NO. 109438	REV
RISER	DRAWN/CHECKED BY: B DOVE/B DYE	C



THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



VERIFY OPERATION ACCEPTABLE TO LOCAL AHJ.

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

Hardware Used:

2 M400P MAGNETIC LOCKS

PS902-2RS-FA POWER SUPPLY WITH ACP

4 SCHLAGE CARD READERS OR BY OTHERS

FIRE ALARM CONTACT BY OTHERS

Type

SECURITY INTERLOCK

2 DOOR

OPERATION:

SECURITY INTERLOCK - BOTH DOORS NORMALLY LOCKED. PRESENTING A VALID CREDENTIAL TO THE CARD READERS WILL RELEASE DOOR IF OTHER DOOR IS CLOSED AND LOCKED.

OPPOSITE DOOR REMAINS LOCKED AS LONG AS OTHER DOOR REMAINS UNLOCKED.

IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.

FIRE ALARM TO RELEASE BOTH M400 MAG LOCKS.

Date Drawn: 3-13-13

Revision Date: 07-03-17



ALLEGION™

TITLE: 2 Door PS902-2RS-FA x 2 M400 Plus Maglocks x 4 Card Readers

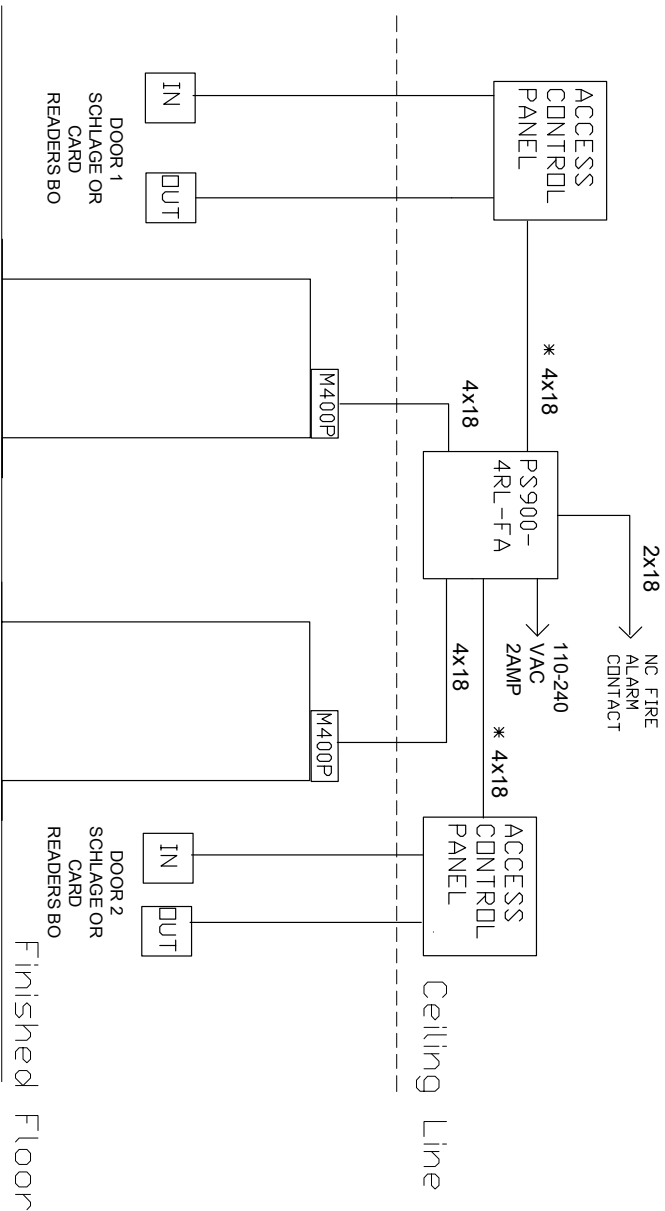
DRAWING TYPE: WIRING DIAGRAM

DWG NO: 109438

REV C

DRAWN/CHECKED BY: B DOVE/B DYE

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:

SET SW2 SWITCHES 1 ON AND 2 OFF TO CONFIG 900-4RL AS SI.  
SET SW1 SWITCHES AS REQUIRED FOR PARTICULAR  
INSTALLATION.

\* ADDITIONAL CONDUCTORS MAY BE REQUIRED. CONSULT  
MANUFACTURERS INSTALLATION INSTRUCTIONS FOR FURTHER  
DETAILS.

CONFIRM HARDWARE AND OPERATION ACCEPTABLE TO LOCAL  
AHJ.

NOTES:

- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD,  
MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
- 2) WIRING TO CONFORM TO APPLICABLE NATIONAL,  
STATE AND LOCAL ELECTRICAL CODES.
- 3) REFER TO SPECIFIC PRODUCT INSTALLATION  
INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
- 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION  
OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
- 5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS  
CONTROL PANEL PROVIDER.

HARDWARE USED:

- 2 M400P MAG LOCKS
- 4 SCHLAGE OR CARD READER BY  
OTHERS WITH ACP
- 1 PS900-4RL-FA

FIRE ALARM CONTACT BY OTHERS

TYPE 2 DOOR SECURITY  
INTERLOCK WITH ACCESS  
CONTROL

OPERATION:

BOTH DOORS NORMALLY LOCKED. CARD READER TO OPEN DOOR ONLY IF  
OTHER DOOR IS CLOSED AND LOCKED.  
NOTE: OPPOSITE DOOR WILL REMAIN LOCKED AS LONG AS OTHER DOOR IS  
UNLOCKED.

FIRE ALARM TO RELEASE BOTH M400 MAG LOCKS.

IN THIS EXAMPLE, ALL WIRING CONNECTIONS ARE MADE IN THE PS900  
ENCLOSURE.

DATE DRAWN: 3-21-13

REVISION DATE: 07-03-17



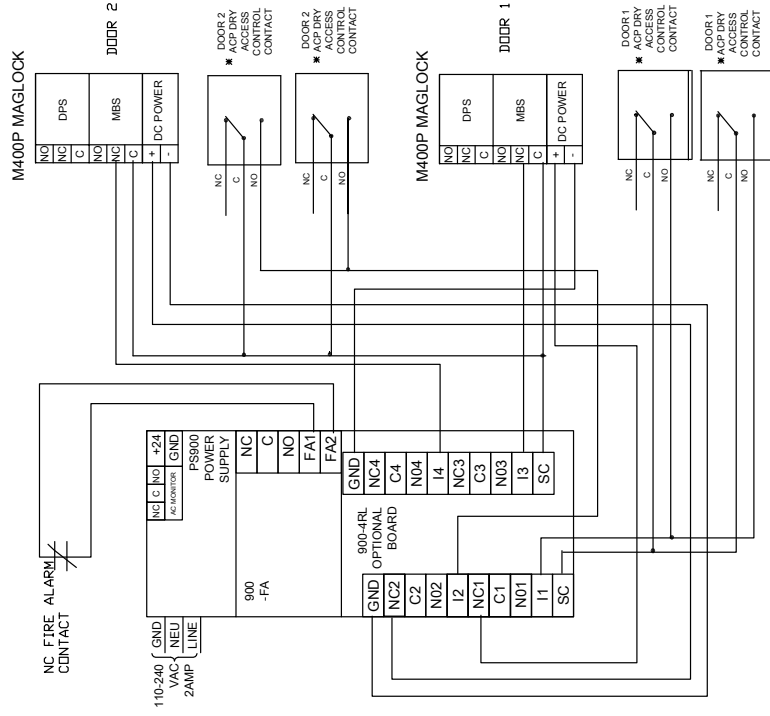
TITLE:  
PS900-4RL-FA SECURITY INTERLOCK  
WITH M400P MAG LOCKS

DRAWING TYPE:  
RISER DIAGRAM

DWG NO.: 109442  
DRAWN/CHECKED BY:  
B DOVE/B DYE

REV:  
C

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:

SET SW2 SWITCHES 1 ON AND 2 OFF TO CONFIG 900-4RL AS SI.

SET SW1 SWITCHES AS REQUIRED FOR PARTICULAR INSTALLATION.

\* ADDITIONAL CONDUCTORS MAY BE REQUIRED. CONSULT MANUFACTURERS INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

CONFIRM HARDWARE AND OPERATION ACCEPTABLE TO LOCAL AUTH.

- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPICES.
- 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
- 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
- 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
- 5) ★ CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:

- 2 M400P MAG LOCKS
- 4 SCHLAGE DR CARD READER BY OTHERS WITH ACP
- 1 PS900-4RL-FA

FIRE ALARM CONTACT BY OTHERS

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TYPE 2 DOOR SECURITY INTERLOCK WITH ACCESS CONTROL

OPERATION: BOTH DOORS NORMALLY LOCKED. CARD READER TO OPEN DOOR ONLY IF OTHER DOOR IS CLOSED AND LOCKED.

NOTE, OPPOSITE DOOR WILL REMAIN LOCKED AS LONG AS OTHER DOOR IS UNLOCKED.

FIRE ALARM TO RELEASE BOTH M490 MAG LOCKS.

IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN THE PS900 ENCLOSURE.

DATE DRAWN: 3-21-13	REVISION DATE: 07-03-11
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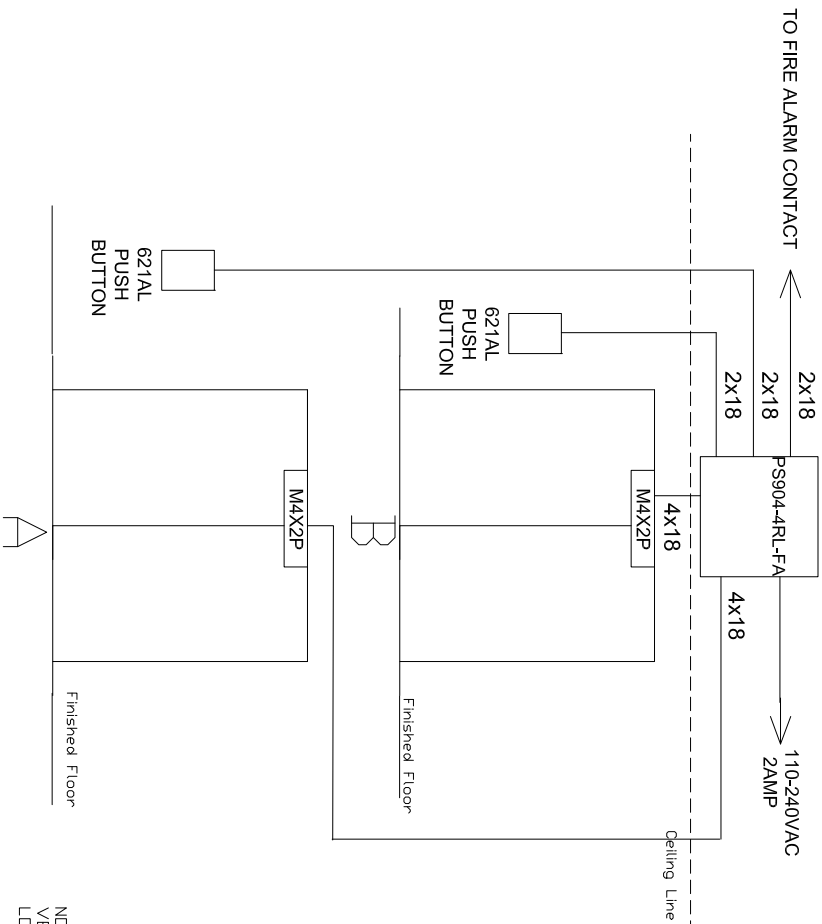


**ALLEGION™**

TITLE: PS900-4RL-FA SECURITY INTERLOCK  
WITH M400P MAG LOCKS

DRAWING TYPE:  RISER DIAGRAM	DWG NO: 109442	REV <b>C</b>
	DRAWN/CHECKED BY:  B DOVE/B DYE	

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
VERIFY HARDWARE AND OPERATION ACCEPTABLE TO  
LOCAL AHJ.

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:  
2 M4X2P MAG LOCKS  
2 621AL PUSH BUTTONS  
1 PS904-4RL-FA POWER SUPPLY  
FIRE ALARM CONTACT SUPPLIED BY OTHERS  
2 DOOR SAFETY INTERLOCK WITH OVERRIDE BUTTONS

DOORS ARE INTERLOCKED WITH EACH OTHER. BOTH DOORS ARE UNLOCKED UNTIL ONE DOOR IS OPENED THEN THE OTHER PAIR OF DOORS WILL BE LOCKED. EITHER PUSHBUTTON OR FIRE ALARM CONTACT WILL DEACTIVATE BOTH MAGLOCKS.  
IN THIS EXAMPLE ALL CONNECTIONS ARE MADE IN THE PS904 ENCLOSURE.  
DATE DRAWN 3-21-13  
REVISION DATE 3-21-13  
copyright 2013

ALLEGION™



TITLE:

PS904-4RL-FA, M4X2P SAFETY INTERLOCK

DRAWING TYPE

RISER DIAGRAM

DWG NO.:

109443

DRAWN/CHECKED BY:

B DOVE

REV

A

NOTE: VERIFY HARDWARE AND OPERATION ACCEPTABLE TO LOCAL AHJ.

NOTES:

- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
- 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
- 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
- 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
- 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

#### HARDWARE USED:

- 2 M4X2P MAG LOCKS  
2 621AL PUSH BUTTONS  
1 PS904-4RL-FA POWER SUPPLY  
FIRE ALARM CONTACT SUPPLIED  
BY OTHERS

TYPE 2 DOOR SAFETY INTERLOCK WITH OVERRIDE BUTTONS

DOORS ARE INTERLOCKED WITH EACH OTHER. BOTH DOORS ARE UNLOCKED UNTIL ONE DOOR IS OPENED THEN THE OTHER PAIR OF DOORS WILL BE LOCKED.

EITHER PUSHBUTTON OR FIRE ALARM CONTACT WILL  
DEACTIVATE BOTH MAGLOCKS.

IN THIS EXAMPLE ALL CONNECTIONS ARE MADE IN THE PS904 ENCLOSURE.

DATE DRAWN: 3-21-13	REVISION DATE: 3-21-13
copyright 2013	



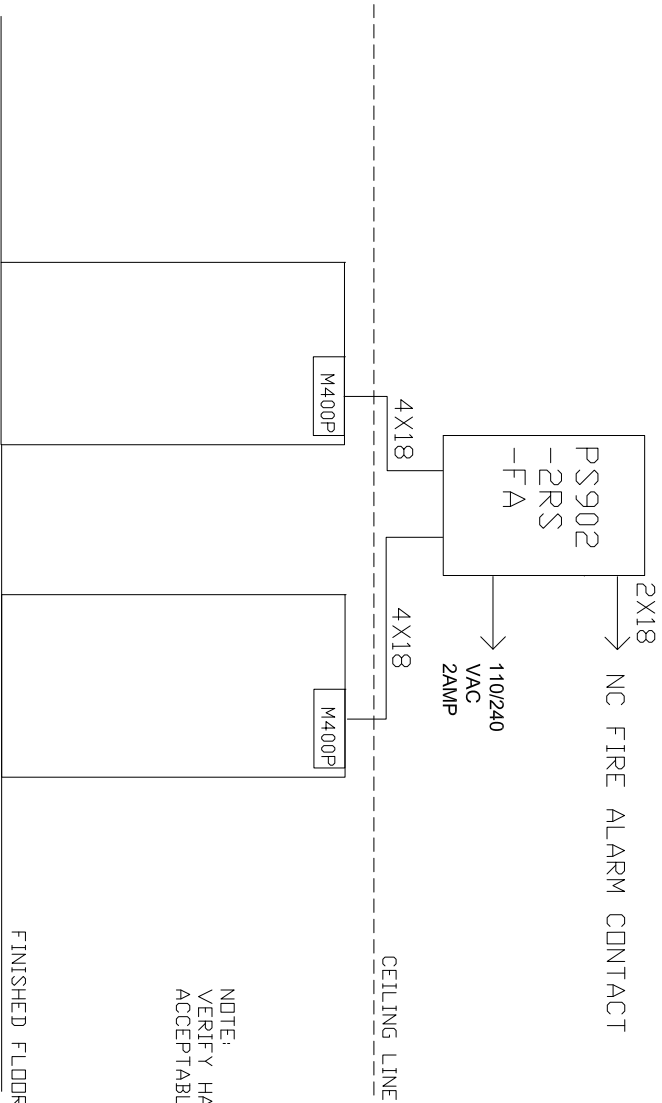
TITLE: PS904 -4RL-FA, M4X2P  
SAFETY INTERLOCK

DRAWING TYPE: WIRING DIAGRAM

DWG NO: 109443

DRAWN/CHECKED BY: B DOVE

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.

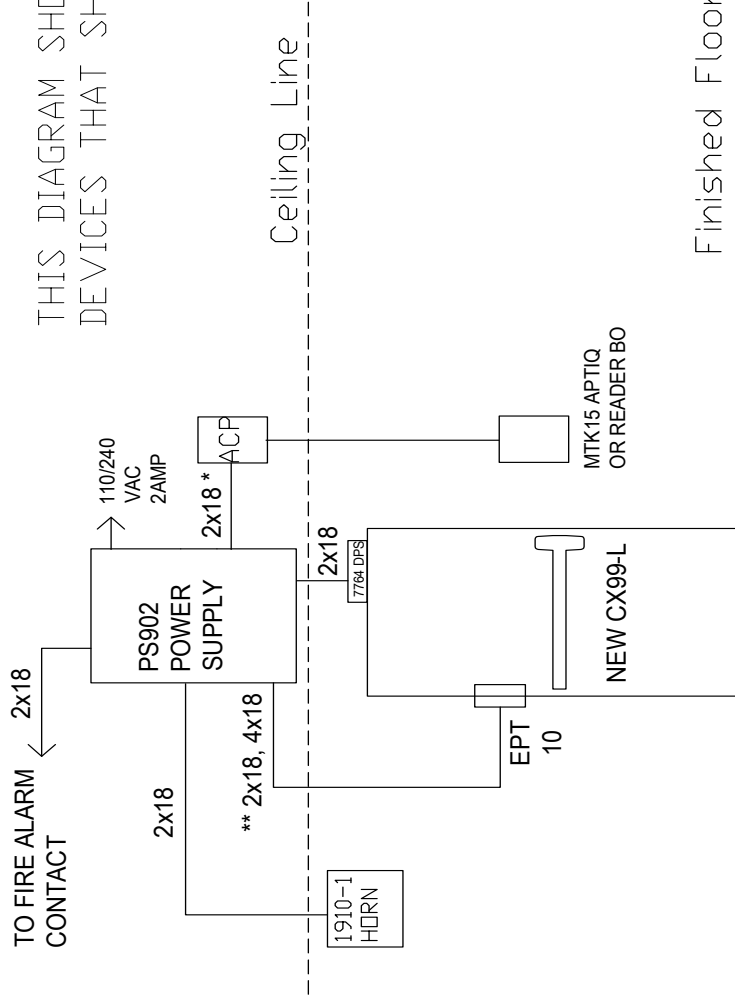


NOTE:  
VERIFY HARDWARE AND OPERATION  
ACCEPTABLE TO LOCAL AHJ.

NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.		HARDWARE USED:  2 M400P MAGNETIC LOCKS 1 PS902-2RS-FA POWER SUPPLY FIRE ALARM CONTACT SUPPLIED BY OTHERS		OPERATION: SAFETY INTERLOCK - WHEN ONE DOOR OPENS OTHER DOOR LOCKS. WHEN BOTH DOORS CLOSED BOTH ARE UNLOCKED IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE. FIRE ALARM TO RELEASE BOTH M400P MAG LOCKS		<div>ALLEGION™</div> <div>PS902-2RS-FA x 2 M400+ MAG LOCKS X 4 CARD READERS</div>				
TYPE		DOOR SAFETY INTERLOCK		DATE DRAWN	REVISION DATE	DRAWING TYPE		DWG NO.	DRAWN/CHECKED BY	REV
				3-14-13	3-14-13	RISER DIAGRAM		109437	B DOVE	A
				copyright 2013						




THIS DIAGRAM SHOWS WIRING FOR CX  
DEVICES THAT SHIPPED AFTER 08-24-15

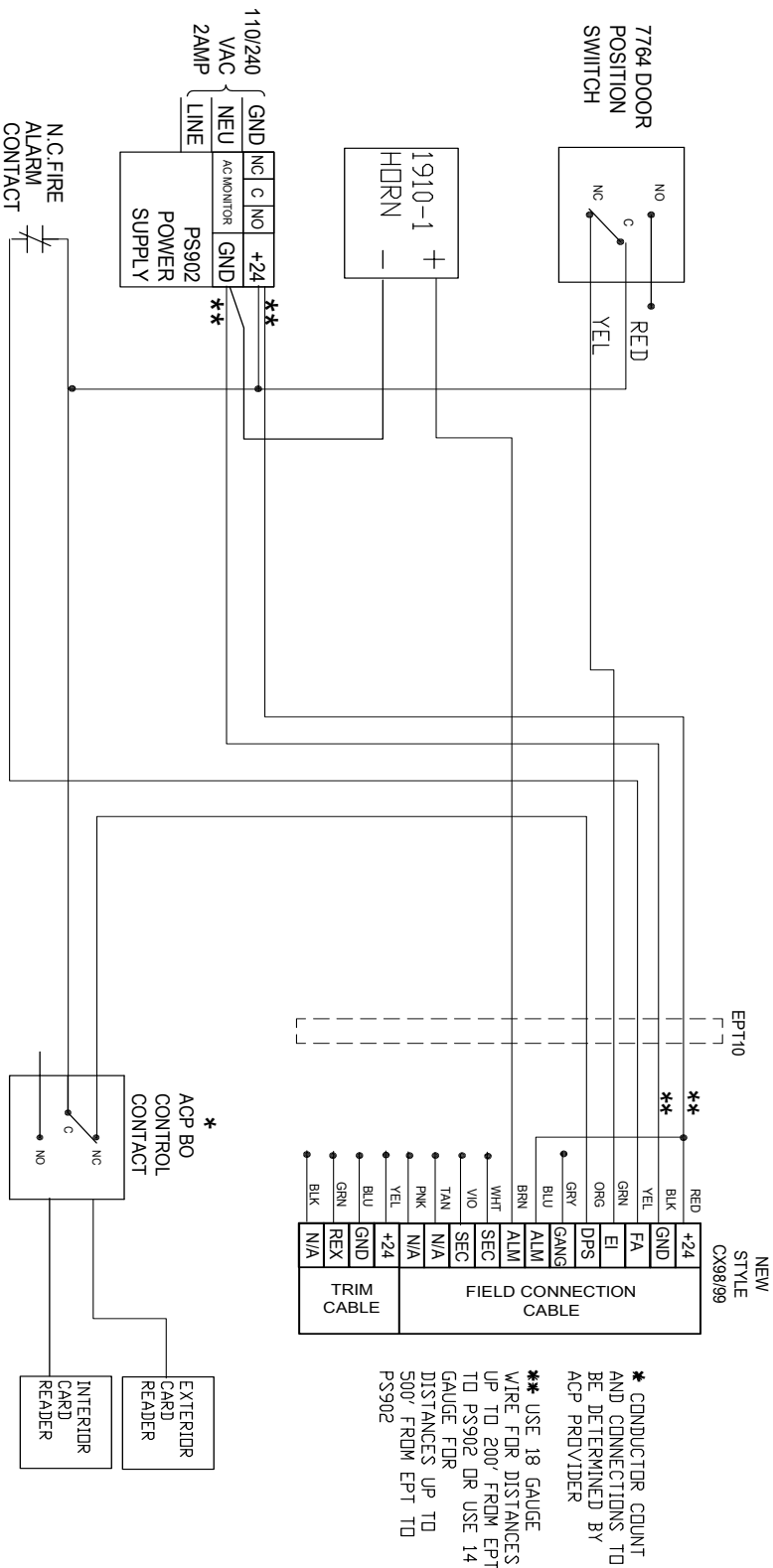


- \* CONDUCTOR COUNT AND CONNECTIONS TO BE DETERMINED BY ACP PROVIDER
- \*\* USE 18 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS902 OR USE 14 GAUGE FOR DISTANCES UP TO 500' FROM EPT TO PS902

- \*\*\* USE 18 GAUGE  
WIRE FOR DISTANCES  
UP TO 200' FROM EPT  
TO PS902 OR USE 14  
GAUGE FOR  
DISTANCES UP TO  
500' FROM EPT TO  
PS902

NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD. MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) * CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.	HARDWARE USED:  1 NEW CX 98/99-L RIM DEVICE 1 EPT10 1 7764 DPS 1 1910-1 HORN 1 PS902 1 MTK15 READER BY ACP BO 1 FIRE ALARM CONTACT	OPERATION:  CHEXIT TO PROVIDE DELAY EGRESS . WHEN CX IS IN ALARM AUDIBLE WILL SOUND IN CX DEVICE AND EXTERNAL 1910-1 HORN.  FIRE ALARM TO RELEASE DOOR FOR IMMEDIATE EGRESS.  MTK15 READER TO RELEASE CX THROUGH ACP CONTROL CONTACT FOR AUTHORIZED PASSAGE . MTK15 OR KEY SWITCH IN CX DEVICE TO RESET CX FROM ALARM.  IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.		
			TITLE:  CX SINGLE DOOR CX WITH PS902	
			DATE DRAWN 07-11-18	REVISION DATE 07-11-18
TYPE DELAYED EGRESS SINGLE DOOR		DRAWING TYPE RISER DIAGRAM		REV A

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



THIS DIAGRAM SHOWS WIRING FOR CX DEVICES THAT SHIPPED AFTER 08-24-15

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:	
1 NEW CX 98/99-L RIM DEVICE	
1 EPT10	
1 7764 DPS	
1 1910-1 HORN	
1 PS902	
2 CARD READER BY ACP BO	
1 FIRE ALARM CONTACT	

OPERATION:	
CHECKIT TO PROVIDE DELAY EGRESS. WHEN CX IS IN ALARM AUDIBLE WILL SOUND IN CX DEVICE AND EXTERNAL 1910-1 HORN.	
FIRE ALARM TO RELEASE DOOR FOR IMMEDIATE EGRESS.	
CARD READERS TO RELEASE CX THROUGH ACP CONTROL CONTACT FOR AUTHORIZED PASSAGE. CARD READER OR KEYSWITCH IN CX DEVICE TO RESET CX FROM ALARM.	
IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS914 ENCLOSURE.	
DATE DRAWN	07-11-18
REVISION DATE	07-11-18

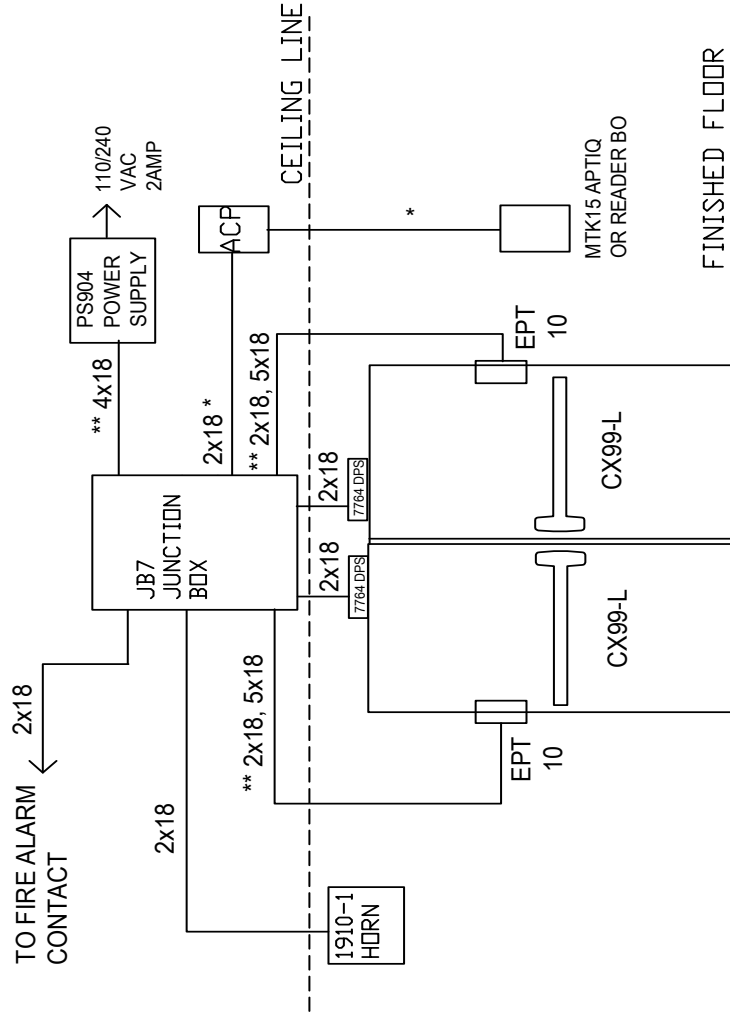


**ALLEGION™**

TITLE:  
CX SINGLE DOOR WITH PS902  
AND INT/EXT CARD READERS

DRAWING TYPE: WIRING DIAGRAM	DWG NO: 112289	REV: A
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THIS DIAGRAM SHOWS WIRING FOR CX  
DEVICES THAT SHIPPED AFTER 08-24-15



\*\*\* USE 18 GAUGE WIRE  
FOR DISTANCES UP TO  
200' FROM EPT TO PS902  
OR USE 14 GAUGE FOR  
DISTANCES UP TO 500'  
FROM EPT TO PS902

5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

2 NEW XC99-L RIM DEVICE  
2 EPT10  
2 7764 DPS  
1 JB7 JUNCTION BOX  
1 MULLION  
1 1910-1 HORN  
1 PS304  
1 MTK15 READER BY ACP BO  
1 FIRE ALARM CONTACT

CHEXTS TO PROVIDE DELAY EGRESS. WHEN CX IS IN ALARM AUDIBLE WILL SOUND IN CX DEVICE AND EXTERNAL. 1910-1 HOUR.

FIRE ALARM TO RELEASE DOORS FOR IMMEDIATE EGRESS.

STAGGER REARM TIMES ON CX DEVICES BY SETTING SWITCHES ON CX PCB DIFFERENTLY.

MTK5 IS READY TO RELEASE BOTH CX THROUGH CX CONTROL CONTACT FOR AUTHORIZED PASSAGE. WINKS OR YE SWITCH ON CX DEVICE TO RESET CAYX FROM ALARM.

IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN JB7 JUNCTION BOX.

REVISION DATE: 07-11-18

DATE DRAWN: 07-11-18

TYPE DELAYED EGRESS  
DOUBLE DOOR

CX DOUBLE DOOR CX WITH PS904

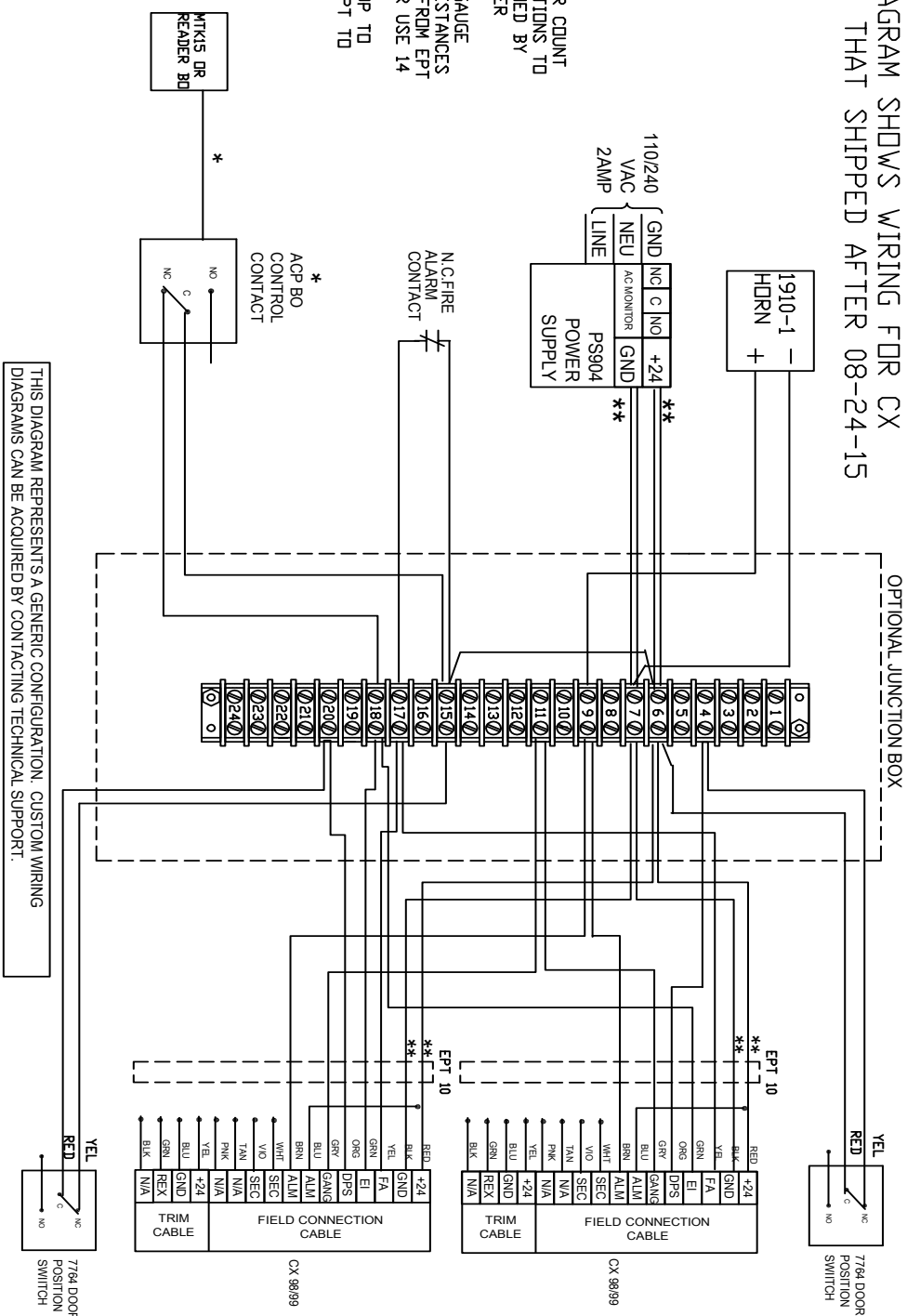
DWG NO: 112290R	DRAWN/CHECKED BY: B DOV
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REV A

THIS DIAGRAM SHOWS WIRING FOR CX  
DEVICES THAT SHIPPED AFTER 08-24-15

\* CONDUCTOR COUNT  
AND CONNECTIONS TO  
BE DETERMINED BY  
ACP PROVIDER

\*\* USE 18 GAUGE  
WIRE FOR DISTANCES  
UP TO 200' FROM EPT  
TO PS902 OR USE 14  
GAUGE FOR  
DISTANCES UP TO  
500' FROM EPT TO  
PS902



- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:	
2	CX 98/99-L RIM DEVICE
2	EPT10
2	7764 DPS
1	J87 JUNCTION BOX
1	MULLION
1	1910-1 HORN
1	PS904
1	MTKIS READER BY ACP BO
1	FIRE ALARM CONTACT

TYPE	
DELAYED EGRESS	
DOUBLE DOOR	

OPERATION:	
CHECKS TO PROVIDE DELAY EGRESS. WHEN CX IS IN ALARM AUDIBLE WILL SOUND IN CX DEVICE AND EXTERNAL 1910-1 HORN.	
FIRE ALARM TO RELEASE DOORS FOR IMMEDIATE EGRESS.	
STAGGER REARM TIMES ON CX DEVICES BY SETTING SWITCHES ON CX PCB DIFFERENTLY.	
MTKIS READER TO RELEASE BOTH CX THROUGH ACP CONTROL CONTACT FOR AUTHORIZED PASSAGE. MTKIS OR KEYSWITCH IN CX DEVICE TO RESET CX FROM ALARM. IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN J87 JUNCTION BOX.	

DATE DRAWN	REVISION DATE
07-11-18	07-11-18

TITLE

CX DOUBLE DOOR CX WITH PS904

DRAWING TYPE

WIRING DIAGRAM

DWG NO

112290

DRAWN/CHECKED BY

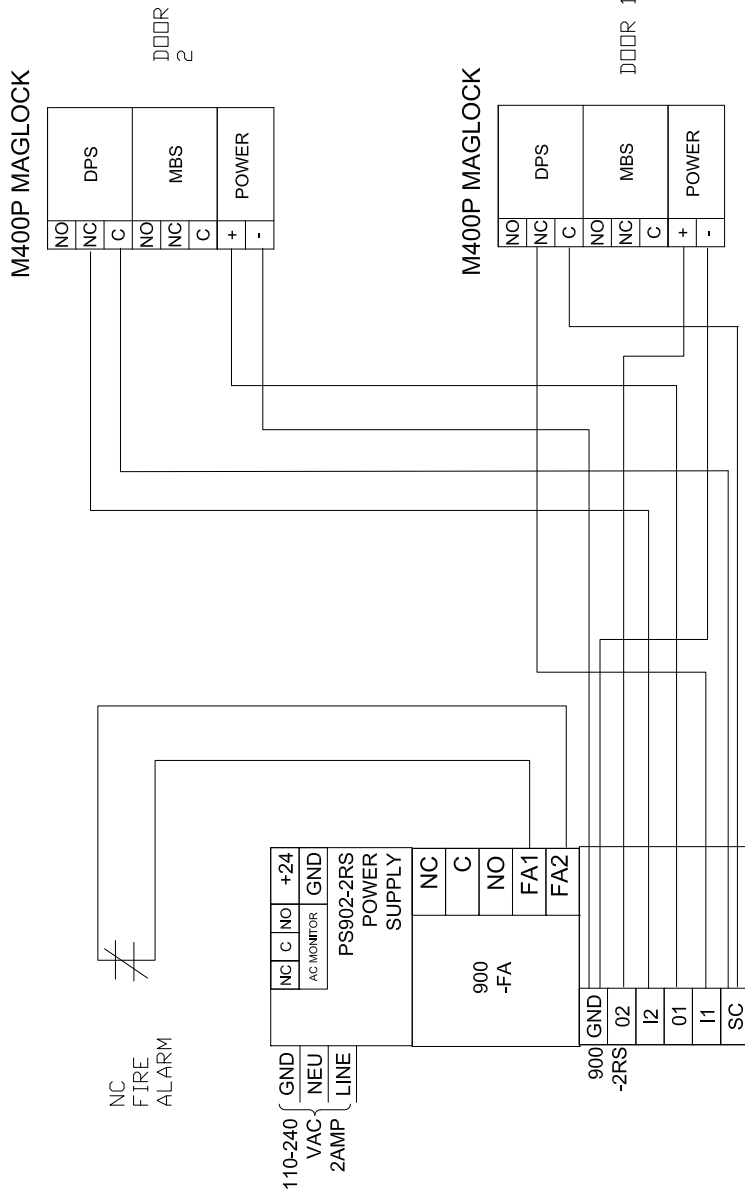
B DOVE/

REV

A

ALLEGION™

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
VERIFY HARDWARE AND OPERATION ACCEPTABLE  
TO LOCAL AHJ.

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD. MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:

- 2 M400P MAGNETIC LOCKS
- 1 PS902-2RS-FA POWER SUPPLY
- FIRE ALARM CONTACT SUPPLIED BY OTHERS

- TYPE
- 2 DOOR SAFETY INTERLOCK

OPERATION:

SAFETY INTERLOCK - WHEN ONE DOOR OPENS OTHER DOOR LOCKS. WHEN BOTH DOORS CLOSED BOTH ARE UNLOCKED IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.

FIRE ALARM TO RELEASE BOTH M400P MAG LOCKS

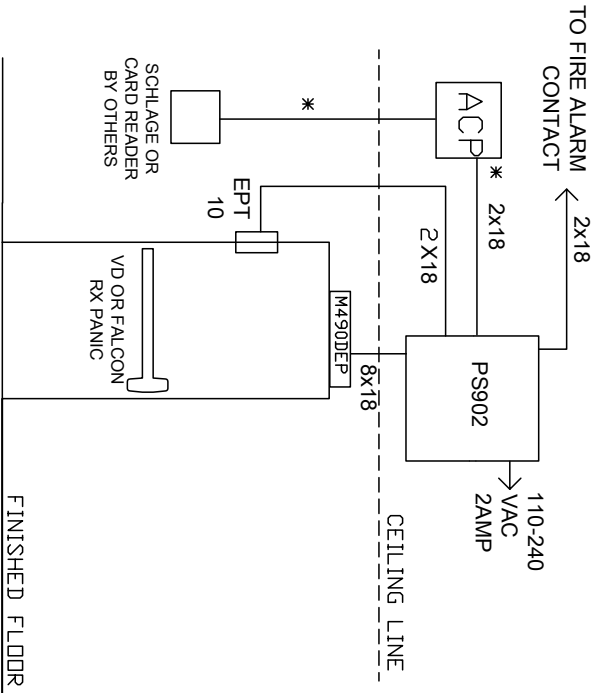
- DATE DRAWN 3-14-13 REVISION DATE 3-14-13
- copyright 2013



TITLE: PS902-2RS-FA x 2 M400+ MAG  
LOCKS x 4 CARD READERS

DWG NO: 109437  
REV A  
DRAWING TYPE: WIRING DIAGRAM  
DRAWN BY: B DOVE

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\*ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION

NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:  
1 VD OR FALCON RX PANIC DEVICE  
1 EPT10 POWER TRANSFERS  
1 M490DEP MAG LOCK  
1 PS902 POWER SUPPLY  
1 SCHLAGE OR CARD READER BY OTHERS WITH ACP  
FIRE ALARM CONTACT BY OTHERS

TYPE  
DELAYED  
EGRESS SINGLE

OPERATION:  
M490DEP MAG LOCK TO PROVIDE DELAYED EGRESS. PUSHING ON PANIC INITIATES 15 SECOND RELEASE COUNTDOWN.  
FIRE ALARM TO RELEASE DOORS IMMEDIATELY.  
INTERIOR SCHLAGE OR CARD READER BY OTHERS TO RELEASE DOORS FOR UNAUTHORIZED EGRESS OR WILL RESET M490DEP FROM ALARM.  
IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.

DATE DRAWN 4-4-2013 REVISION DATE 07-03-17



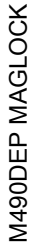
TITLE  
M490DEP WITH RX PANIC,  
ACCESS CONTROL AND PS902

DRAWING TYPE:  
RISER DIAGRAM

DWG NO. 109498  
DRAWN/CHECKED BY: B DIVE

REV  
C

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:

- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
- 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
- 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
- 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
- 5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESSORY CONTROL PANEL PROVIDER.

HARDWARE USED:

- 1 VD OR FALCON RX PANIC DEVICE
- 1 EPT10 POWER TRANSFERS
- 1 M490DEP MAG LOCK
- 1 PS902 POWER SUPPLY
- 1 SCHLAGE DR CARD READER BY OTHERS

FOR ALARM CONTACT BY OTHERS

ALARM CONTACT BY OTHERS  
 DELAYED  
 EGRESS SINGLE

OPERATION:  
MAGNETIC LOCK TO PROVIDE DELAYED EGRESS. PUSHING ON PANIC  
INITIATES 15 SECOND RELEASE COUNTDOWN.  
  
FIRE ALARM TO RELEASE DOORS IMMEDIATELY.  
  
INTERIOR SCHAIGE OR CARD READER BY OTHERS TO RELEASE DOORS FOR  
UNAUTHORIZED EGRESS OR WILL RESET MAGNETIC LOCK FROM ALARM.  
  
IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.

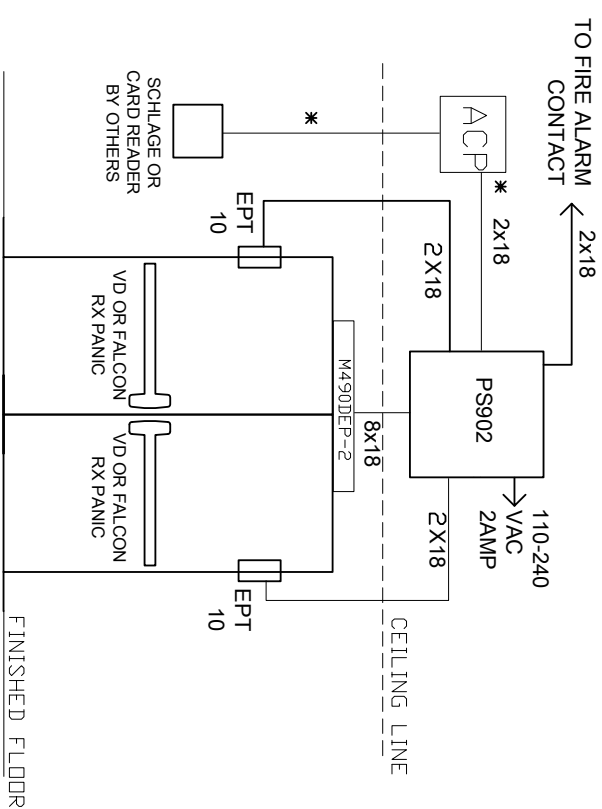
DATE DRAWN:	4-4-2013	REVISION DATE:	07-03-17
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M490DEP WITH RX PANIC,  
ACCESS CONTROL AND PS902

DRAWING TYPE: <b>WIRING DIAGRAM</b>	DWG NO: <b>109498</b>	DRAWN/CHECKED BY: <b>B DOVE/</b>	REV <b>C</b>

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.

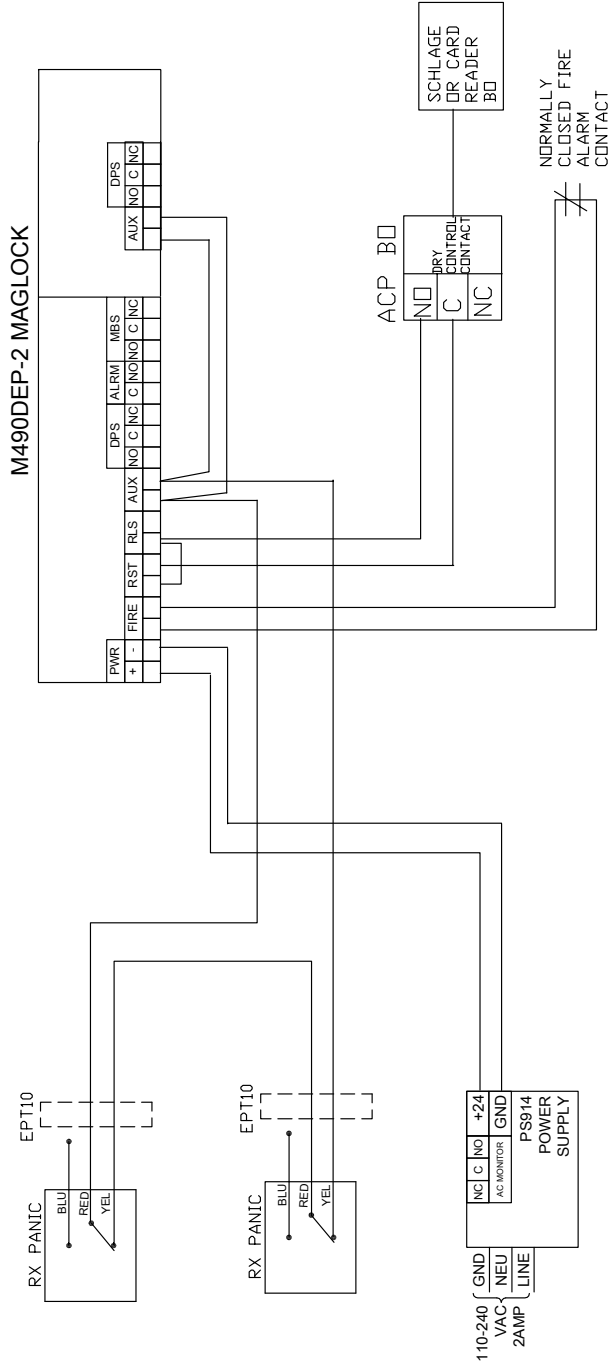


NOTE:  
\*ADDITIONAL WIRING IS REQUIRED. SEE MANUFACTURER INSTALLATION INSTRUCTION

NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) * CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.		HARDWARE USED: 2 VD OR FALCON RX PANIC DEVICES 2 EPT10 POWER TRANSISTERS 1 M490DEP-2 MAG LOCK 1 PS902 POWER SUPPLY 1 SCHLAGE OR CARD READER BY OTHERS WITH ACP 1 FIRE ALARM CONTACT BY OTHERS		OPERATION: M490DEP-2 MAG LOCK TO PROVIDE DELAYED EGRESS. PUSHING ON EITHER PANIC INITIATES 15 SECOND RELEASE COUNTDOWN. FIRE ALARM TO RELEASE DOORS IMMEDIATELY. INTERIOR SCHLAGE OR CARD READER BY OTHERS TO RELEASE DOORS FOR AUTHORIZED EGRESS OR WILL RESET M490DEP-2 FROM ALARM. IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.		DATE DRAWN: 4-3-2013		REVISION DATE: 07-03-17		TITLE: M490DEP-2 WITH PAIR RX PANICS, ACCESS CONTROL AND PS902	
TYPE: DELAYED EGRESS PAIR		DRAWING TYPE: RISER DIAGRAM		DWG NO: 109500		DRAWN/CHECKED BY: B DAVE		REV: C		ALLEGION™	



THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.  
2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.  
3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.  
4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.  
5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

HARDWARE USED:  
2 VD OR FALCON RX PANIC DEVICES  
2 EPT10 POWER TRANSFERS  
1 M490DEP-2 MAG LOCK  
1 PS902 POWER SUPPLY  
1 SCHLAGE OR CARD READER BY OTHERS WITH ACP  
FIRE ALARM CONTACT BY OTHERS

TYPE DELAYED  
EGRESS PAIR

OPERATION:  
M490DEP-2 MAG LOCK TO PROVIDE DELAYED EGRESS. PUSHING ON EITHER PANIC INITIATES 16 SECOND RELEASE COUNTDOWN.  
FIRE ALARM TO RELEASE DOORS IMMEDIATELY.  
INTERIOR SCHLAGE OR CARD READER BY OTHERS TO RELEASE DOORS FOR AUTHORIZED EGRESS OR WILL RESET M490DEP-2 FROM ALARM.  
IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN PS902 ENCLOSURE.

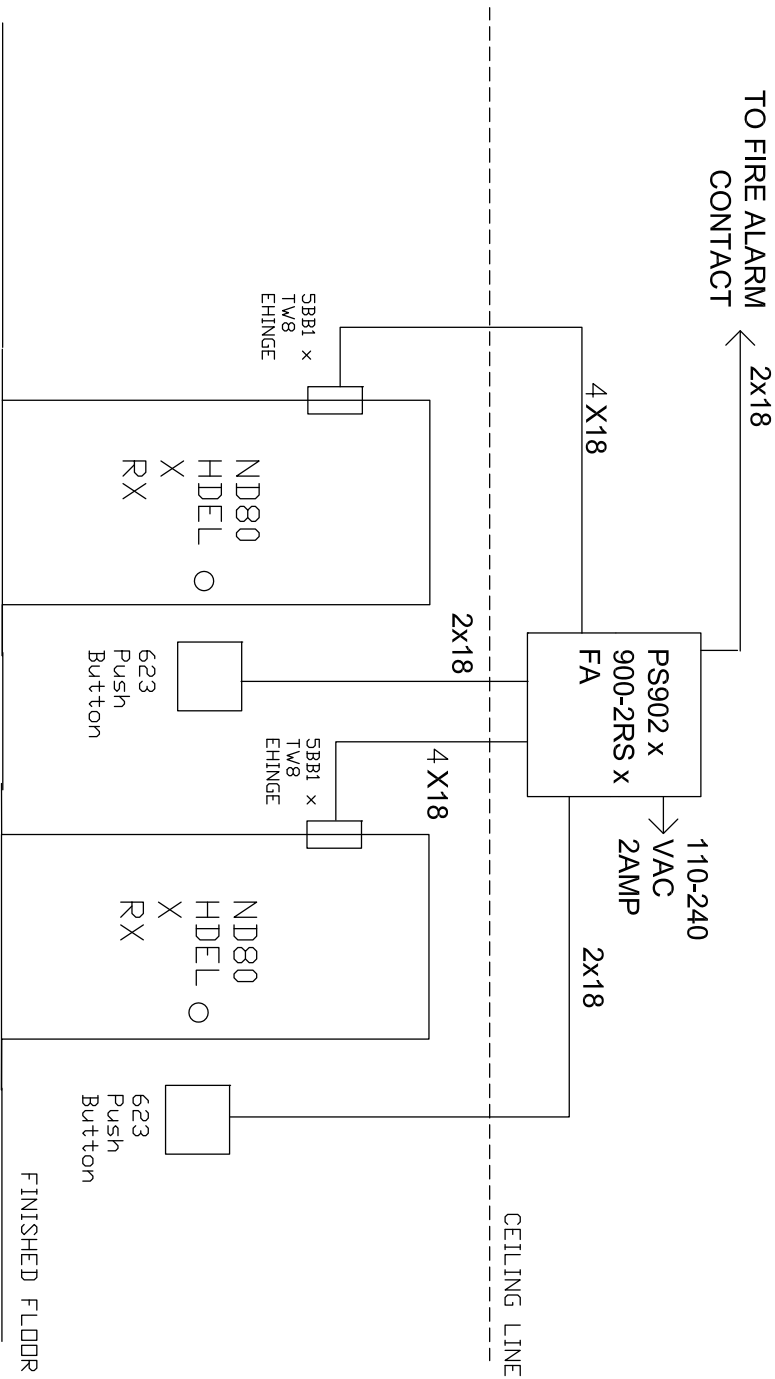
DATE DRAWN 4-3-2013  
REVISION DATE 07-03-17



TITLE M490DE-2 WITH PAIR RX PANICS,  
ACCESS CONTROL AND PS902

DRAWING TYPE: WIRING DIAGRAM  
DWG NO: 109500  
REV: C  
DRAWING CHECKED BY: B DOVE/

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING  
DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES: 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES. 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES. 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS. 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY. 5) ADDITIONAL WIRING WILL BE REQUIRED FROM APP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.		HARDWARE USED: 1 PS902-2RS-FA 2 623 PUSHBUTTONS 2 SBBI TW8 EHINGS 2 ND80 HDL X RX LOCKSETS 1 FIRE ALARM CONTACT BY BUILDING SYSTEM		REGULATION: COMMON RESTROOM SHARED BY 2 ROOMS. DOORS NORMALLY UNLOCKED. LOCK ENTERING RESTROOM ONE OF THE MOMENTARY 623 PUSHBUTTONS WILL BE PRESSED TO LOCK THE RESTROOM - WHEN EITHER LEVER IS USED TO EXIT. RX SWITCH IN LEVER WILL ELECTRICALLY UNLOCK BOTH DOORS. FIRE ALARM ACTIVATION TO CAUSE NO EL LOCKS TO UNLOCK. IN THIS EXAMPLE ALL WIRING CONNECTIONS ARE MADE IN THE PS902 POWER SUPPLY.		TITLE: ND80 HDL X RX LOCKSETS DN SHARED RESTROOM	
TYPE SHARED RESTROOM		DATE DRAWN: 4-25-13		REVISION DATE: 4-25-13		DRAWING TYPE: RISER DIAGRAM	
copyright 2013		DWG NO: 109529		DRAWN/CHECKED BY: B DOVE		REV: A	





NORMALLY  
CLOSED  
FIRE  
ALARM  
CONTACT

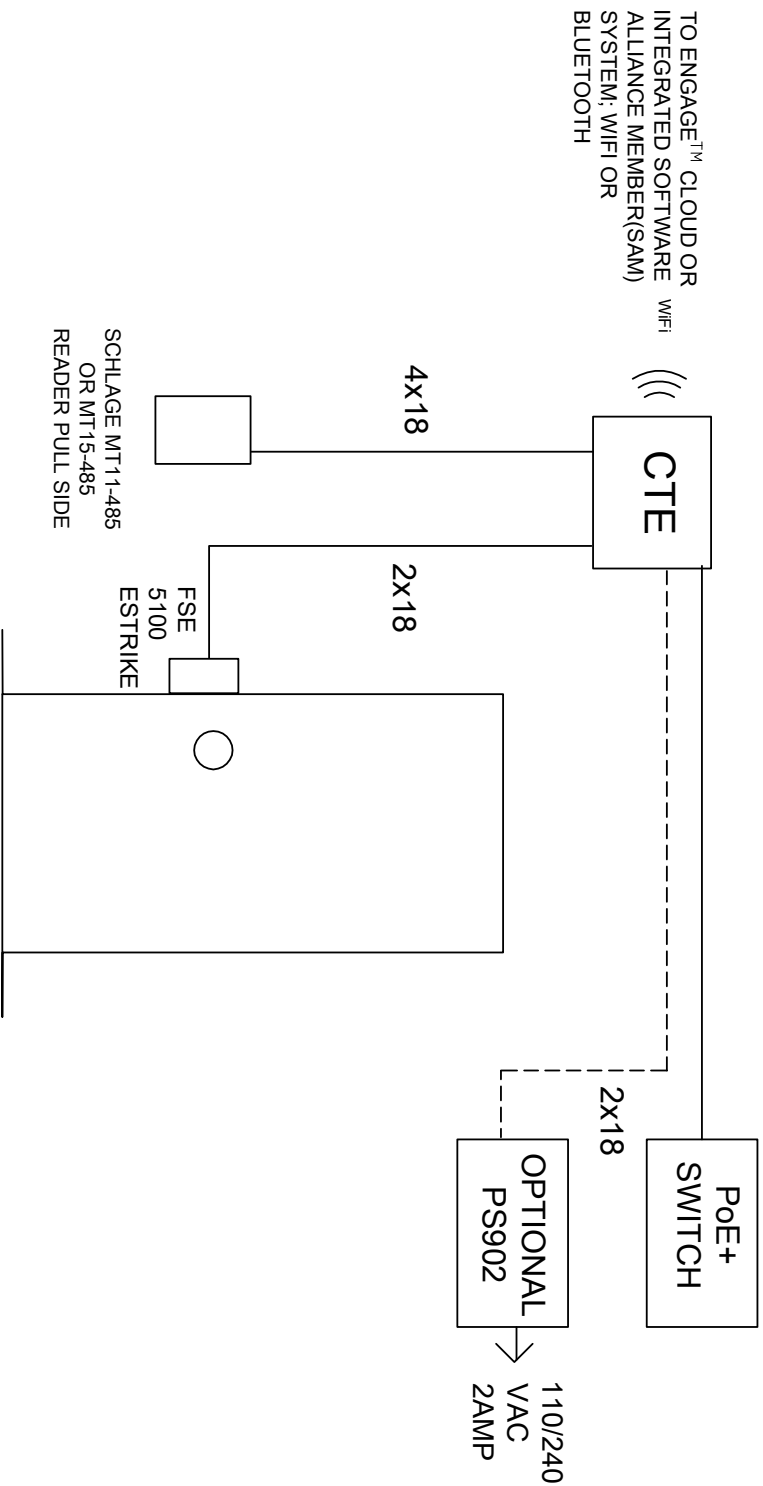


DATE DRAWN: 4-30-13	REVISION DATE: 4-30-13
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TYPE SHARED RESTROOM -  
3 DOORS

DRAWING TYPE: WIRING DIAGRAM	DWG NO: 109537	REV
	DRAWN/CHECKED BY: B DOVE	

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



TO ENGAGE™ CLOUD OR  
INTEGRATED SOFTWARE  
ALLIANCE MEMBER(SAM)  
SYSTEM; WIFI OR  
BLUETOOTH

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

HARDWARE USED:

- 1 CTE
- 1 MT11-485 OR MT15-485 SCHLAGE READER
- 1 VD 5100 ESTRIKE
- 1 PoE+ SWITCH
- 1 OPTIONAL PS902

OPERATION:

SCHLAGE MT11-485 OR MT15-485 READER TO RELEASE FSE 5100 ESTRIKE TO ALLOW ENTRY. CTE CAN BE USED WITH ENGAGE™ CLOUD OR SOFTWARE ALLIANCE MEMBER (SAM) SYSTEM. VERIFY PoE+ POWER SOURCE APPROPRIATE TO HANDLE LOAD AT OPENING. ADDITIONAL WIRING WILL BE REQUIRED THAT IS NOT SHOWN HERE. FREE EGRESS ALWAYS PERMITTED. THIS IS NOT A FIRE RATED APPLICATION.

DATE DRAWN: 08-21-17

REVISION DATE: 08-21-17

**ALLEGION™**

**PoE+ CTE WITH 5100 ESTRIKE**

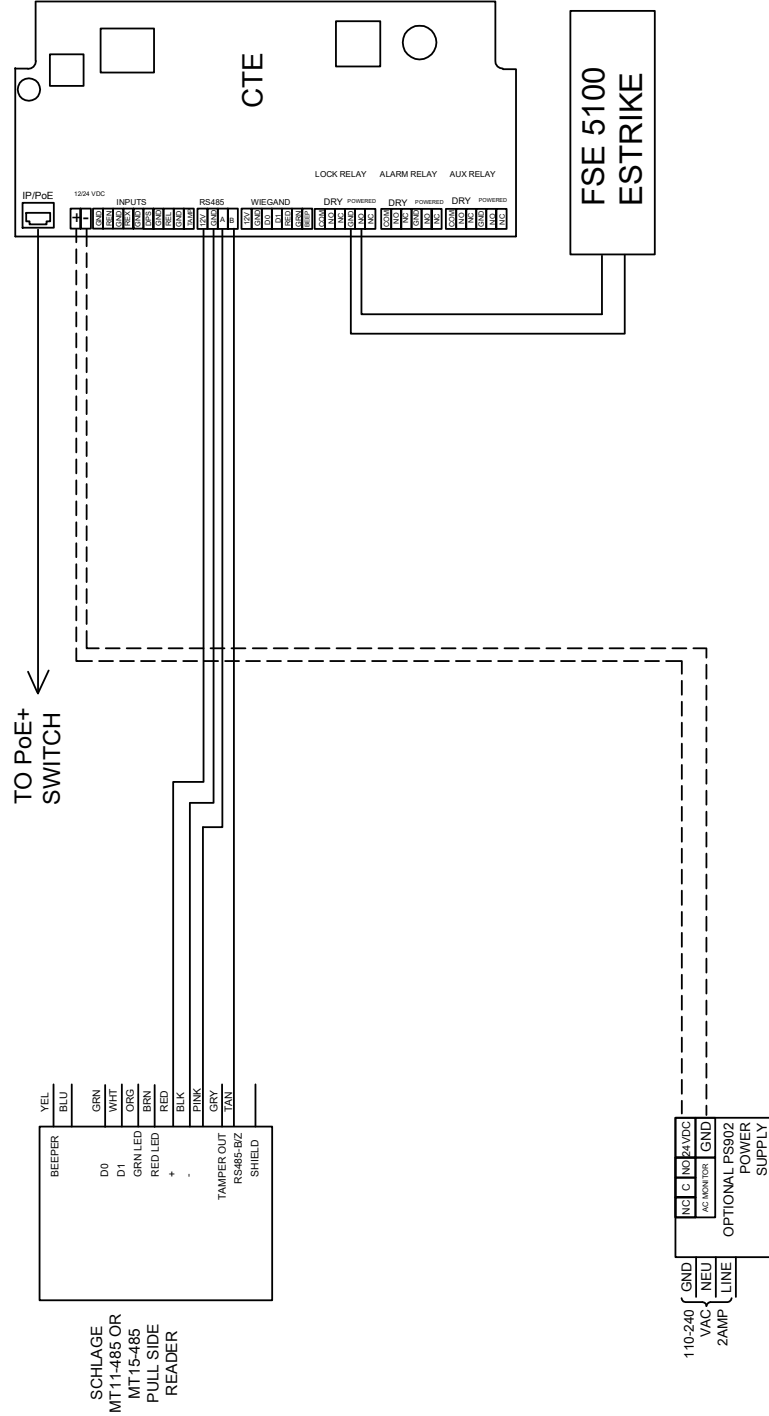
**BASIC CONFIGURATION**

DWG NO. 112089

DRAWN/CHECKED BY: BRENDA DOVE

REV A

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



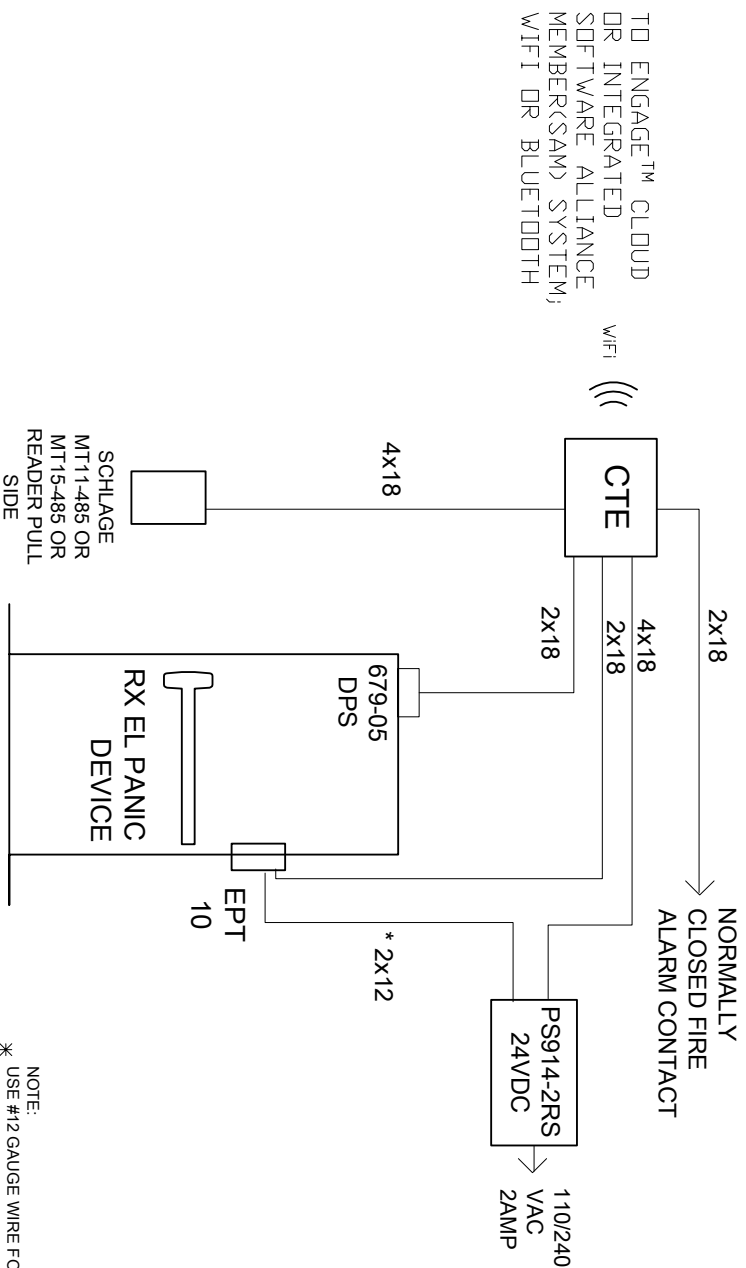
PoE+ CTE WITH 5100 ESTRIKE  
BASIC CONFIGURATION

DRAWING TYPE:	DWG NO: 112089W		REV A
	DRAWN/CHECKED BY: BRENDA DOVE		

OPERATION: SCHLAGE MT11-485 OR MT15-485 READER TO RELEASE FSE 5100 ESTRIKE TO ALLOW ENTRY. CTE CAN BE USED WITH ENGAGE™ CLOUD OR SOFTWARE ALLIANCE MEMBER (SAM) SYSTEM. VERIFY PoE+ POWER SOURCE APPROPRIATE TO HANDLE LOAD AT OPENING. ADDITIONAL WIRING WILL BE REQUIRED THAT IS NOT SHOWN HERE. FREE EGRESS ALWAYS PERMITTED. THIS IS NOT A FIRE RATED APPLICATION	DATE DRAWN: 08-21-17		REVISION DATE: 08-21-17
	TYPE PoE+ CTE ACCESS CONTROL WITH 5100 ESTRIKE - BASIC		

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
  - 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
  - 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
  - 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
  - 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTE:  
\* USE #12 GAUGE WIRE FOR DISTANCES UP TO 200' FROM EPT TO PS914.  
USE #14 GAUGE WIRE FOR DISTANCES UP TO 100' FROM EPT TO PS914.

- NOTES:
- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
- 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
- 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
- 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
- 5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS CONTROL PANEL PROVIDER.

#### HARDWARE USED:

1 CTE  
1 MT11-485 DR MT15-485 SCHLAGE  
READER  
1 VD DR FALCON RX EL PANIC  
1 EPT10  
1 PS914-2RS  
1 679-05 DPS

OPERATION:

SCHLAGE MT11485 OR MT15485 READER TO SIGNAL EL TO RETRACT THE ELECTRIC LATCH ON PANIC BAR THROUGH THE CTE TO ALLOW ENTRY.

CTE CAN BE USED WITH ENGAGE™ CLOUD OR SOFTWARE ALLIANCE MEMBER (SAM) INTEGRATED SYSTEM.

FREE EGRESS ALWAYS PERMITTED

FIRE ALARM TO EXTEND EL LATCH.

TYPE	CTE ACCESS CONTROL WITH EL PANIC- FIRE RATED
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DATE DRAWN: 00-21-17

REVISION DATE: 08-21-17

**ALLEGION™**

CTE WITH EL AND

PS914-2RS - FIRE RATED

DRAWING TYPE:

## RISER DIAGRAM

DWG NO: 112090

CHECKED BY:

REV A



[illegible]\*  
\*

NOTES:

- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD MULTI-CONDUCTOR COLOUR CODED WITHOUT SPLICES.
- 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
- 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
- 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
- 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

**HARDWARE USED:**

- 1 CTE
- 1 MT11-485 DR MT15-485 DR
- MTK15-485 SCHLAGE READER
- 1 VD DR FALCON RX EL PANIC
- 1 EPT10
- 1 PS914-2RS
- 1 679-05 DPS

**OPERATION:**  
SCHLAGE MT11-485 OR MT15-485 OR MTK15-485 READER TO SIGNAL EL  
TO RETRACT THE ELECTRIC LATCH ON PANIC BAR THROUGH THE CTE  
TO ALLOW ENTRY.

CTE CAN BE USED WITH ENGAGE™ CLOUD OR SOFTWARE ALLIANCE MEMBER (SAM) INTEGRATED SYSTEM.

FREE EGRESS ALWAYS PERMITTED.

FIRE ALARM TO EXTEND EL LATCH.

TYPE	CTE ACCESS CONTROL	DATE DRAWN: 08-21-17	REVISION DATE: 08-21-17
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DATE DRAWN:	08-21-17	REVISION DATE:	08-21-17
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TYPE	CTE ACCESS CONTROL WITH EL PANIC-FIRE RATED
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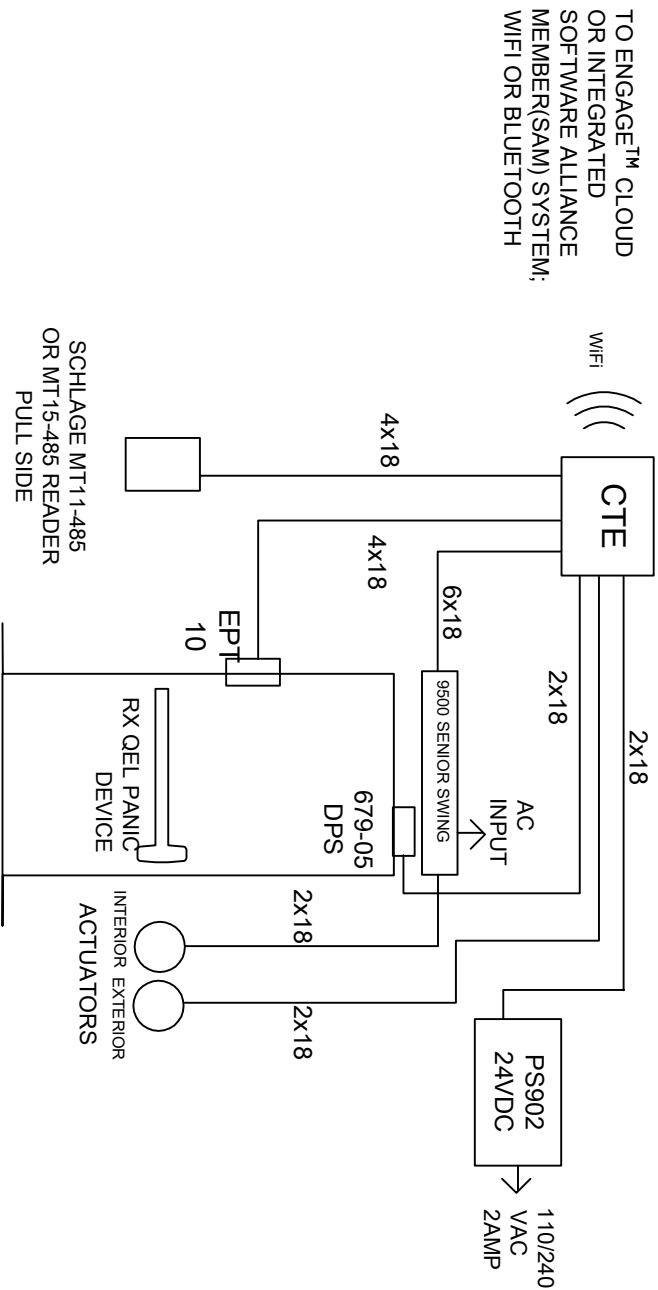


**ALLEGION™**

TITLE: CTE WITH EL AND PS914-2RS-FIRE RATED

DRAWING TYPE <b>WIRING DIAGRAM</b>	DWG NO: <b>112090</b>	REV <b>A</b>
	DRAWN/CHECKED BY: <b>BRENDA DOVE</b>	

THIS DIAGRAM REPRESENTS A GENERIC CONFIGURATION. CUSTOM WIRING DIAGRAMS CAN BE ACQUIRED BY CONTACTING TECHNICAL SUPPORT.



NOTES:  
1) ALL LOW VOLTAGE WIRING TO BE STANDARD,  
MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.

2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND  
LOCAL ELECTRICAL CODES.

3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS  
FOR SPECIFIC WIRING REQUIREMENTS.

4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF  
PRODUCTS DETAILED IN THE HARDWARE SET ONLY.

5) \* CONDUCTOR COUNT TO BE DETERMINED BY ACCESS  
CONTROL PANEL PROVIDER.

HARDWARE USED:

- 1 CTE
- 1 MT11-485 OR MT15-485 SCHLAGE  
READER
- 1 VD QEL PANIC
- 1 EPT 10
- 1 PS902
- 1 679-05 DPS
- 1 9500 SENIOR SWING
- 2 ACTUATORS

TYPE CTE ACCESS CONTROL  
WITH QEL PANIC WITH  
SENIOR SWING AO

OPERATION:

SCHLAGE MT11-485 OR MT15-485 READER TO SIGNAL EL TO RETRACT THE ELECTRIC LATCH  
ON VON DUPRIN RX QEL PANIC BAR AND ENABLE EXTERIOR ACTUATOR TO ALLOW ENTRY.  
FREE EGRESS ALWAYS PERMITTED. INTERIOR ACTUATOR ALWAYS ACTIVE.

ADDITIONAL WIRING WILL BE REQUIRED THAT IS NOT SHOWN HERE

CTE TO COMMUNICATE TO ENGAGE™ CLOUD OR SOFTWARE ALLIANCE  
MEMBER (SAM) SYSTEM

THIS IS NOT A FIRE RATED APPLICATION

DATE DRAWN:

08-24-17

REVISION DATE:

08-24-17

**ALLEGION™**

TITLE CTE WITH QEL AND PS902 WITH 9500  
SENIOR SWING AO

DRAWING TYPE:

RISER DIAGRAM

DWG NO:

112091

DRAWN/CHECKED BY:

BRENDA DOVE

REV

A



NOTES:

- 1) ALL LOW VOLTAGE WIRING TO BE STANDARD, MULTI-CONDUCTOR COLOR CODED WITHOUT SPLICES.
- 2) WIRING TO CONFORM TO APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
- 3) REFER TO SPECIFIC PRODUCT INSTALLATION INSTRUCTIONS FOR SPECIFIC WIRING REQUIREMENTS.
- 4) THIS DRAWING IS FOR GRAPHICAL REPRESENTATION OF PRODUCTS DETAILED IN THE HARDWARE SET ONLY.
- 5) ADDITIONAL WIRING WILL BE REQUIRED FROM ACP THAT IS NOT SHOWN HERE. CONSULT PROVIDER FOR DETAILS.

**HARDWARE USED:**

- 1 CTE
- 1 MT11-485 OR MT15-485 SCHLAGE  
READER
- 1 VD QEL PANIC
- 1 EPT 10
- 1 PS902
- 1 679-05 DPS
- 1 9500 SENIOR SWING
- 2 ACTUATORS

OPERATION:  
 SCHLAGE MT11-485 READER TO SIGNAL EL TO RETRACT THE ELECTRIC LATCH  
 ON VON DUPRIN RX GEL PAINC BAR AND ENABLE EXTERIOR ACTUATOR TO ALLOW ENTRY.  
 FREE EGRESS ALWAYS IS PERMITTED. INTERIOR ACTUATOR ALWAYS ACTIVE.  
 ADDITIONAL WIRING WILL BE REQUIRED THAT IS NOT SHOWN HERE.  
 CTE TO COMMUNICATE TO ENGAGE™ CLOUD OR SOFTWARE ALLIANCE  
 MEMBER (S/M) SYSTEM  
 THIS IS NOT A FIRE RATED APPLICATION

TYPE CTE ACCESS CONTROL WITH QEL PANIC WITH SENIOR SWING AO

DATE DRAWN:	08-24-17	REVISION DATE:	08-24-17
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DRAWING TYPE: <b>WIRING DIAGRAM</b>	DWG NO. <b>112091</b>	REV <b>A</b>
	DRAWN/CHECKED BY: <b>BRENDA DOVE</b>	



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## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries.

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

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