

SCHLAGE

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 access control 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.

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-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.

¹ Check with PACS provider for specific support of mobile credentials in Apple Wallet® and Google Wallet.™
² Applies to cylindrical and mortise chassis only.

Encryption key and credential interoperability

- Hardware configured with our default encryption key or custom key developed by Schlage Custom Encryption Key Service (SCEKS) including NXP, HID® and NFC
- Schlage MIFARE® DESFire® and MIFARE Classic® credentials
- Apple Wallet® and Google Wallet™ NFC student ID and employee badge
- HID iCLASS®, iCLASS SE® and SEOS® plastic and NFC mobile credentials (see page 3)
- Other competitive credentials (see page 3)

Schlage Credential Services

- CardTrax™ credential format sequencing service offering industry standard formats
- Custom format development

Features and benefits

- Open architecture platform - integrated into most popular physical access control systems through our **PACS Alliance** program
- Multi-technology credential compatibility includes Schlage MIFARE®, NFC mobile¹, and proximity
 - Optional support for HID® smart and NFC mobile credentials
- Panel interface options ensure seamless communication with the access control system
- Secure encrypted data transmission
- Unique communication protocols won't interfere with other wireless networks
- Wake up on Radio feature enables centralized lockdown in less than 10 seconds while still optimizing battery life up to 2 years
- Non-invasive wireless installation for historic buildings and sensitive areas
- Wireless accessories available for remote, gate, elevator and portable or temporary (mustering) applications

CYBERSECURITY

Learn about Allegion's commitment

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

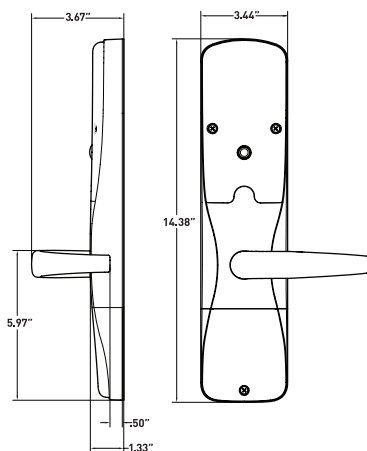
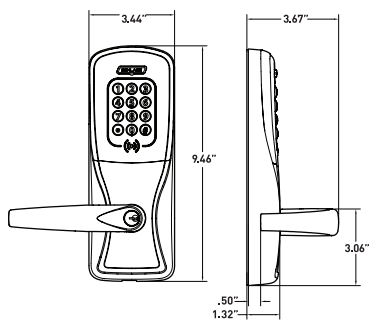
This feature enables implementation of wireless locks in applications where centralized lockdown or unlock is required. 'Wake Up on Radio' utilizes patent-pending technology to enable real-time activation at a remote battery-powered wireless lock. The technology is configurable from 10 to 1 second increments. 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 ¹
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) 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; ULC S319; UL 10C 3 hour; FCC Part 15; Industry Canada (IC); ADA compliant; Cylindrical and mortise chassis only: TDI DR-464; DR-465; FL12400, FL4613, FL1592, FL13013, FL14482; Mortise chassis only: FL3905
Accessories	Panel Interface Module (PIM400), SUS-A Cable used with SUS Android mobile app, remote antennas for PIM400 to extend range, Dry Contact Relay Board (RLBD) may be required for supervised inputs (Wiegand systems)



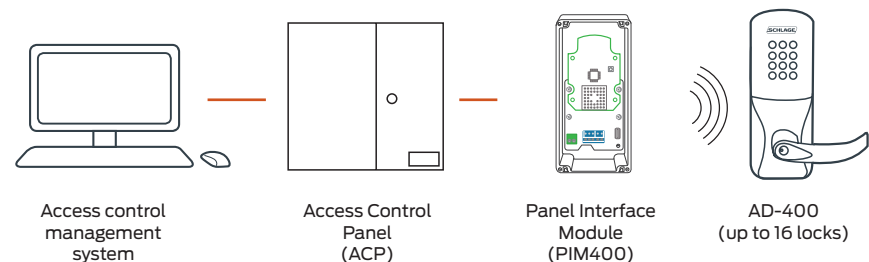
Functions

- Storeroom²
- Office/classroom^{2, 3}
- Privacy³
- Apartment³

Available status signals

- Lock/unlock status⁴
- Request-to-exit
- Door position
- Mechanical key override³
- Deadbolt position³
- Interior push button³
- Interior cover tamper guard³
- Battery status
- Communication status³
- Request-to-enter³

The AD-400 has a number of field-configurable features and provides opening intelligence through status signals that can be monitored by access control software. Please consult one of our Physical Access Control Software (PACS) providers for [details](#) on specific features.



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

² Storeroom and office/classroom functions not available with mortise deadbolt option.

³ Consult your Physical Access Control Software (PACS) provider for specific scope of support. Interior pushbutton, mechanical key override and deadbolt position are only available when linked via PIM400-485.

⁴ 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 locked outdoor A156.2 Series 4000 Grade 1	A156.25 locked outdoor A156.13 Series 1000 Grade 1	A156.25 locked outdoor A156.3 Grade 1
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)		

Standard multi-technology reader specification

Credential technologies	Proximity (125 kHz), Smart (13.56 MHz) and Near Field Communication (NFC)
Standards	ISO 15693 ISO 14443
Read range	Proximity: up to 1.25" Smart: up to .75" NFC mobile: mobile device dependent
Proximity credential compatibility	Compatibility: Schlage, ISONAS™, HID ⁴ , GE/CASI ProxLite®, AWID® and LenelProx® Schlage credential style formats: Clamshell, ISO card, ISO card with magnetic stripe, keyfob, thin keyfob, PVC adhesive disc
Smart credential compatibility	Secure sector compatibility: Schlage MIFARE Classic®, Schlage MIFARE Plus®, Schlage MIFARE® DESFire®, PIV and PIV-I ^{1,2} CSN only compatibility: HID iCLASS®, HID iCLASS SE®, Inside Contactless Pico Tag®, MIFARE Classic/Plus/DESFire, 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, PVC patch
Mobile credential compatibility	Apple Wallet® NFC student ID and employee badge mobile credentials, Google Wallet™ NFC student ID and employee badge mobile credentials ³
Certifications	FCC, Industry Canada (IC), UL 294
Options	12 button, 3 x 4 matrix backlit keypad

¹ FIPS 201-2 integration ready 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 when installed as part of a tested and approved integrated solution. Please see the [AD-402 data sheet](#) or [AD-302 data sheet](#) for complete details.

² 75 bit output format default. Configurable to other output formats.

³ Check with PACS provider for specific support of mobile credentials in Apple Wallet® and Google Wallet™.

⁴ Proximity bit lengths greater than 37 not supported.

Available AD Series reader modules

								
Multi-technology <ul style="list-style-type: none"> Proximity Smart NFC mobile 	Multi-technology <ul style="list-style-type: none"> Proximity Smart NFC mobile 	Si with HID support <ul style="list-style-type: none"> Smart NFC mobile 	Si with HID support <ul style="list-style-type: none"> Smart NFC mobile 	Magnetic stripe (insertion) <ul style="list-style-type: none"> KEYPAD 	Magnetic stripe (insertion)	Magnetic stripe (swipe) <ul style="list-style-type: none"> KEYPAD 	Magnetic stripe (swipe)	Keypad
								

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
- Compatible with NFC mobile credentials on iOS and Android platforms³
- Allows facility to migrate to more secure credential technologies over time and as budgets permit

Additional readers

Si option with HID® support

Supports:

- Secure application area of HID iCLASS®, iCLASS SE®, Seos® smart credentials
- iCLASS Standard Key and Elite Keys
- HID NFC mobile credentials
- All Schlage MIFARE® and NFC mobile credentials

Does not support:

- Proximity
- Bluetooth® (BLE) mobile credentials

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, 3 x 4 matrix

Ordering information

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

AD-400-CY-70-MG-SPA-626-P6-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.

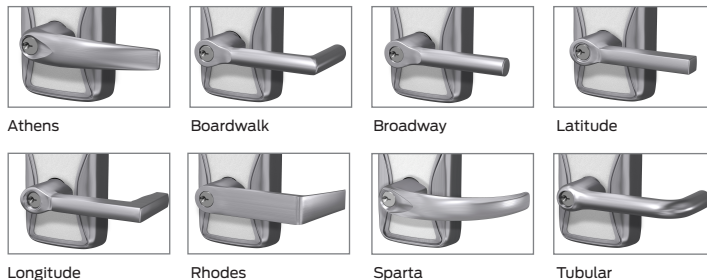
3	Chassis
CY	Cylindrical
MS	Mortise
MD	Mortise deadbolt
993R	Exit trim – Rim/CVC/CVR
993S	Exit trim – SVR
993M	Exit trim – mortise
993DT	Non-functioning dummy trim for exit
4	Function
70	Storeroom
50	Office/classroom
40	Privacy
60	Apartment
Lock function capabilities are determined by users access control 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
	(125 kHz, 13.56 MHz, NFC)
MTK	Multi-technology + keypad
	(125 kHz, 13.56 MHz, NFC)
FMK	FIPS 201-1 compliant
	multi-technology + keypad
	(125 kHz and 13.56 MHz)
Si	HID support
SiK	HID support + 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
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
P6	Schlage 6-pin Conventional key-in-lever cylinder
See price book for other SFIC, FSIC and less cylinder options available. Compatible with Schlage®, Sargent®, Corbin Russwin, Medeco® and Yale®.	
9	Keyway type
S123	Everest 29
See price book for other available keyway options including restricted keyways in Primus XP high security cylinders and master keying.	
10	Handing
RH	Right handed
LH	Left handed
Field reversible.	

11	Battery
4B	4AA
8B	8AA
12	Backset & latch or armor front
Cylindrical	
13-247	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.	
13	Strike
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.	
14	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.



About Allegion

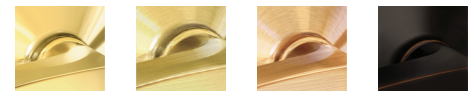
Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions.

For more, visit www.allegion.com

KRYPTONITE ■ LCN ■ **SCHLAGE** ■ STEELCRAFT ■ VON DUPRIN

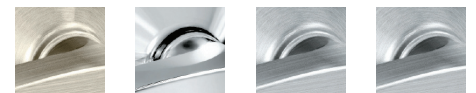
Finishes

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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