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 can change 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 -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 your access control software partner 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 with deadbolt and exit trim
- Compatible with major brands of master key systems
- A wide selection of credential readers and networking options to choose from
- AD-Series with multi-technology readers are NFC compatible
- ANSI/BHMA A156.25, ANSI/BHMA Grade 1, UL 294, UL10C, FCC Part 15, ADA, RoHS

AD-300 Electronic Lock Specifications

Credential Verification Time	< 1 second
Data Rate	RS-485 : 9.6 kbps
Visual/Audible Communications	Tri-colored LED's & 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% 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)

† Software indicates lock/unlock status based on sequence of events, but cannot validate mechanical clutch positions unless monitored on RS-485* connection

Functions

▶ *Classroom/Storeroom*
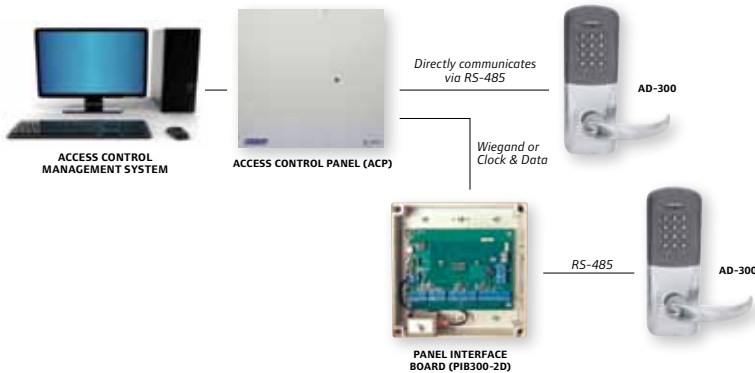▶ *Office**
▶ *Privacy**
▶ *Apartment**

Note: BHMA/ANSI functions such as these can be implemented by the Software when Door Position, Deadbolt Position and/or Interior Push button are monitored. Consult Software provider for specific capabilities. Classroom/Storeroom and Office function not available with Mortise Deadbolt option.

Available Status Signals

▶ *Lock/Unlock Status[†]*
▶ *Request-to-Exit*
▶ *Door Position*
▶ *Mechanical Key Override**
▶ *Deadbolt Position**
▶ *Interior Cover Tamper Guard**
▶ *Communication Status**
▶ *Interior Push Button**
▶ *Request-to-Enter**

* 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.
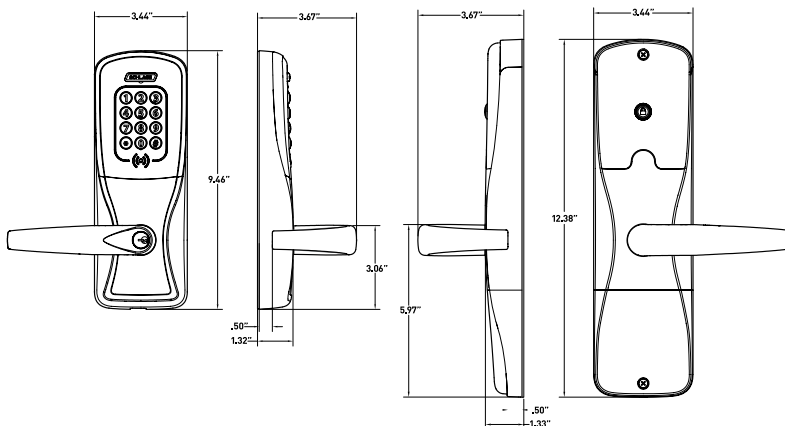
System Configuration

ACCESS CONTROL MANAGEMENT SYSTEM

ACCESS CONTROL PANEL (ACP)

Directly communicates via RS-485

AD-300

Wiegand or Clock & Data

RS-485

AD-300

PANEL INTERFACE BOARD (PIB300-2D)

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.

Dimensions

3.44"
3.67"
3.67"
3.44"
9.46"
3.06"
12.38"
5.97"
.50"
1.32"
.50"
1.33"

PIB300-2D Specifications

Communication Range	**PIB300 to Lock**, RS-485: up to 4000'
	PIB300 to ACP, Wiegand or Clock & Data: up to 500'
Visual/Audible	13 LEDs for Status Indicators
System Interface	Wiegand or Clock & Data
Voltage Range	9.5 VDC to 26 VDC
Power Supply	12 VDC or 24 VDC
Max Current Requirements	Up to 250 mA
Operating Temperature	-31° to 151°F (-35° to 66°C)
Dimensions (HWD)	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

Mechanical Specifications

Chassis	Cylindrical (Based on Schlage ND-Series)	Mortise (Based on Schlage L-Series)
Handing	Handed to Order, Field Reversible	
ANSI Standard	Meets or exceeds A156.25 and A156.2 Series 4000, Grade 1 strength and operational requirements	Meets or exceeds A156.25 and A156.13 Series 1000, Grade 1 operational and security
Door Thickness	1-3/4″ standard, 1-3/8″ to 2-3/4″ optional (available in 1/8″ increments)	
Backset	2-3/4″ standard, 2-3/8″, 3-3/4″ and 5″ optional	2-3/4″ only
Latch Bolt	1/2″ throw security latch standard, 3/4″ throw optional	3/4″ throw with anti-friction tongue standard, **1″ throw deadbolt on Mortise Deadbolt option***
Levers	Pressure cast zinc, plated to match finish symbols	Steel, plated to match finish symbols
Strike	ANSI curved lip strike 1-1/4″ x 4-7/8″ x 1-3/16″ lip to center standard, optional strikes, lip lengths and ANSI strike box available	ANSI curved lip strike 1-1/4″ x 4-7/8″ x 1-3/16″ lip to center with dust box standard, optional strikes lip lengths available
Cylinder & Keys	Schlage 6-pin Everest C123 keyway cylinder with two patented keys standard Additional options available including Standard, SFIC, FSIC and competitor brands	

**Classroom/Storeroom and Office options not available with deadbolt.

AD-Series Exit Trim

AD-300 and 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 Ingersoll Rand. 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*

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 compatibility	Schlage Proximity, XceedID™ Proximity, HID® Proximity, GE/CASI ProxLite®, AWID® Proximity, LenelProx®
13.56 MHz compatibility	Schlage MIFARE® Secure Sector, XceedID™ MIFARE® Secure Sector, aptiQ™ Smart Cards using MIFARE DESFire™ EV1 with PACSA; PIV and PIV-I***†
13.56 MHz compatibility (serial number only)	DESFire® CSN, HID iClass® CSN, Inside Contactless PicoTag® CSN, MIFARE®, MIFARE DESFire™ EV1, ST Microelectronics® CSN, Texas Instruments Tag-It® Serial Number, Phillips I-Code® CSN
125 kHz Compatible Schlage Credentials	125 kHz Clamshell (SXF7410), 125 kHz ISO Card (SXF7510), 125 kHz ISO Card w/Magnetic Stripe (SXF7510MS)
13.56 MHz Compatible Schlage Credentials	13.56 MHz MIFARE Clamshell (SXF9420), 13.56 MHz MIFARE ISO Printable (SXF9520, SXF9551, SXF9558), 13.56 MHz MIFARE Key Tag (SXF9651), 13.56 MHz MIFARE PVC Patch (SXF9751), aptiQ™ Smart Cards using MIFARE DESFire™ EV1 (SXF9000 Series)
Certifications/Standards	FCC, RSS210, UL 294, Listed, ISO Standard 15693, and ISO Standard 14443
Style/Layout	Option for 12 button, 3x4 matrix backlit keypad

Notes:

** *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-401 data sheet or AD-301 data sheet for complete details.*

† *75 bit output format default. Configurable to other output formats*

▶ Benefits of AD-Series Multi-Technology Readers:

· Reads multiple brands of both proximity (125 kHz) and smart (13.56 MHz) technologies with single device
· AD-Series multi-technology readers are NFC compatible
· Allows end user to migrate to more secure credentials over time and as budgets permit

Additional Readers

Magnetic Stripe

· Now available with choice of Insertion or Swipe style readers
· Triple Track Reader (1, 2 or 3), field configurable
· ABA, ISO76XX Standard
· Reader can be cleaned without removing lock from door
· Option for 12 button, 3x4 matrix backlit keypad

Keypad

· Backlit keypad
· 12 button, 3x4 matrix

Available AD-Series Reader Modules

· **Multi-Technology**
  · Proximity
  · Smart Card
  + KEYPAD

· **Multi-Technology**
  · Proximity
  · Smart Card

· **Magnetic Stripe** (Insertion)
  + KEYPAD

· **Magnetic Stripe** (Insertion)

· **Magnetic Stripe** (Swipe)
  + KEYPAD

· **Magnetic Stripe** (Swipe)

· **Keypad**

Ordering Information

AD	300	CY	70	MG	SPA	626	PD	C123	RH	13-049	10-025	1-3/4
Series	Class	Chassis	Function	Reader	Lever Style	Finish	Lever Cylinder	Keying Type	Handing	Backset & 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/CVR/CVC
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 (125 kHz and 13.56 MHz)
MTK	Multi-Technology + Keypad (125 kHz and 13.56 MHz)
DT	Dummy Trim

6 Lever

SPA	Sparta
RHO	Rhodes
ATH	Athens
TLR	Tubular

Available with knurled surface

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 Full Cylinder

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

9 Keyway Type

C123	**Everest**

See price book for other available keyway options including master keying
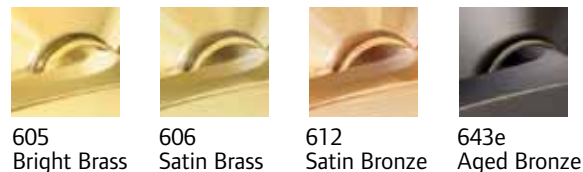
10 Handing

RH	**Right Handed**
LH	Left Handed

Field reversible

11 Backset & Latch or Armor Front

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

12 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

13 Door Thickness

1-3/4"
Other thicknesses available between 1-3/8" and 2-3/4
See price book for detail.

Lever styles

Standard cylinders shown, SFIC and FSIC also available.

Sparta

Rhodes

Athens

Tubular

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

Ingersoll Rand
Security Technologies