Yale®

Hold the card in close proximity to the door lock

DISCONTINUED

Affinity®

Smart Card Lock

introduction

Yale® Affinity® (RFID) Smart Card Locks combine the latest Radio Frequency Identification technology with a flexible electronic locking system, perfect for Multi-Family, Apartment or Condominium Housing. Designed with ease of use and resident security in mind, Yale brings contactless identification electronic locking to the multi-family housing market.

Combined with VISION by VingCard® software, *Affinity* is a full-featured, functionally rich access control system with the power, flexibility and ease of use to meet the operating needs of any multi-family property both now and in the future.

Affinity Smart Card Locks are part of a stream of new ASSA ABLOY products moving from traditional mechanical locks to being extensions of access control systems in facilities. This exciting new technology-rich product requires an increase in knowledge to ensure the correct selection and implementation in various environments.

ASSA ABLOY has created two programs that provide the necessary training to sell, order, install and service *Affinity* Smart Card Locks from Yale. These programs are open to all distributors who qualify.

Sold through
ASSA ABLOY AUTHORIZED CHANNEL PARTNER

- The Authorized Channel Partner (ACP) program is open to wholesale and contract hardware distributors, who sell ASSA ABLOY's technology products to security systems integrators and locksmiths, and help with product selection based on the application. The ACP is for resellers that do not install and service products.

To be Installed by
ASSA ABLOY CERTIFIED INTEGRATOR

- The Certified Integrator (CI) program provides hands-on training for security systems integrators and network administrators. Not only does this training familiarize certified integrator candidates on product features and applications, it also gives them valuable experience installing, commissioning, and troubleshooting the products in a real-world environment. This category extends to End Users that install and manage their own systems and third party lock installers as well.

Software training is required and must be provided by an ASSA ABLOY group company. This training will be arranged and performed directly with the facility. Unlimited technical support is available 24/7 to all facilities that maintain a service contract.

For more information on meeting the guidelines of this program, contact your local ASSA ABLOY Door Security Solutions sales consultant for details.

A.D.A.
Affinity Series Smart Card Locks meet accessibility guidelines of the Americans with Disabilities Act and the requirements of the Uniform Federal Accessibility Standards and ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities, all requiring ease of accessibility for the handicapped.

ANSI/BHMA
Affinity Series Smart Card Locks are designed to meet ANSI/BHMA A156.13, and A156.25, Grade 1.

armor front
8" x 1-1/4" (203mm x 32mm). Armor front finish will match finish specified for lockset.

contents

backset
Available with 2-3/4" (70mm) backset only.

case
C1018 Cold rolled steel, zinc dichromate plated.

door thickness
For 1-3/4" (44mm) thick doors only.

fire listings
All functions are UL-cUL Listed for use on fire doors having a rating up to and including 3-hours.

guardbolt
Guardbolt is powdered steel, non handed.

latchbolt
Powdered steel 3/4" (19mm) two piece, anti-friction latchbolt.

finishes

ANSI/BHMA Code	Finish Description
605	Bright Brass, Clear Coated
606	Satin Brass, Clear Coated
625	Bright Chrome Plated
626	Satin Chrome Plated

Note: Affinity finishes may differ slightly from ANSI/BHMA finish standards.

features

handing
Affinity® Series Smart Card locks are factory handed. Required hand must be specified. See page 10 for more information.

installations
Affinity Series Smart Card Locks conform to modified ANSI/BHMA Specifications A156.115, which cover hardware preparations for steel doors and steel frames, and A156.115-W, which cover hardware preparations for wood doors with wood or steel frames. See page 7 for more information.

battery cover and batteries
Furnished standard as black matte finished polycarbonate. Optional metal cover to match lever finish is available, see *Options* on this page for more information. Units are powered by 3AA batteries (supplied). Batteries provide up to 2 years normal lifetime.

strikes
Affinity Series Smart Card Locks use a modified curved lip strike. This strike is handed and requires a frame modification for frames with preparations to ANSI/BHMA A156.115. See page 7 for more information.

warranty
The *Affinity* Series Smart Card Lock carries a 1-year warranty.

RFID smart card reader
The *Affinity* Series Smart Card Lock offers multiple technology standards in one electronic lock and provides access today to next generation technologies. Reader material is black matte finished polycarbonate.
• 13.56 MHz RFID technology
• Compatible with the following standards:
  - ISO 14443 A (MIFARE)
  - ISO 14443 B
  - ISO 15693

automatic deadbolt
Affinity Series Smart Card Locks are furnished standard with an automatic deadbolt for an added level of security. *Affinity* lockcase fronts have an additional trigger switch located above the deadbolt. Upon closing the door, the trigger switch is depressed as it meets the strike plate, thus, automatically projecting the deadbolt. The deadbolt has a 1" (25mm) throw and is constructed of 1020 milled steel.

options
Metal Battery Cover and Thumbturn – An optional cover and thumbturn finished to match levers are available. To order, specify option "VBC".

optional passage mode
Affinity is available with an optional passage mode that allows free access without the use of the key card when desired. If passage mode capability is desired, a specially programmed keycard is presented one time to the lock to turn on the feature. The passage feature is then controlled by the inside thumbturn. When the thumbturn is in the vertical position the lock remains open from the inside and outside. When the thumbturn is turned 45° clockwise, *Affinity* is then in the locked position and a valid user keycard is required for entry. Optional passage mode is a function of the software and must be set up when the system is initiated.

additional features
• 600 event audit trail
• LED display with three colors.
• Future re-programmable FLASH RAM lock memory
• Optional Key Override - full range of Yale® conventional, patented and security cylinders available. See page 6 for cylinder information.
• Simultaneous Retraction - operating inside lever automatically retracts latchbolt and deadbolt allowing free egress in emergency situations.
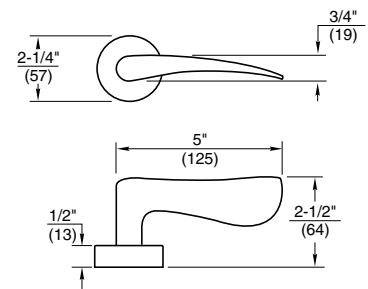
lever designs

handle with return VAU
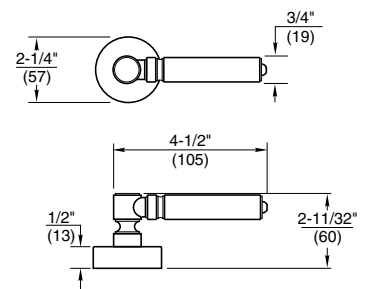
Lever: Solid Brass
Rose: Solid Brass

2-1/4" (57)
3/4" (19)
5-3/64" (128)
1/2" (13)
2-1/16" (52)
1/4" (6)
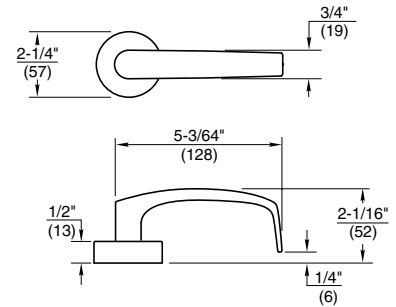
wing handle VAR

Lever: Solid Brass
Rose: Solid Brass

2-1/4" (57)
3/4" (19)
5" (125)
1/2" (13)
2-1/2" (64)

gothic handle VGH

Lever: Solid Brass
Rose: Solid Brass

2-1/4" (57)
3/4" (19)
4-1/2" (105)
1/2" (13)
2-11/32" (60)
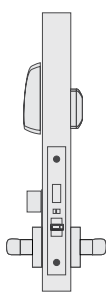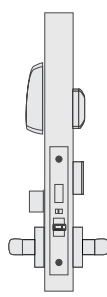
straight handle VMO

Lever: Solid Brass
Rose: Solid Brass

2-1/4" (57)
7/8" (22)
5-1/8" (130)
1/2" (13)
2-5/32" (55)
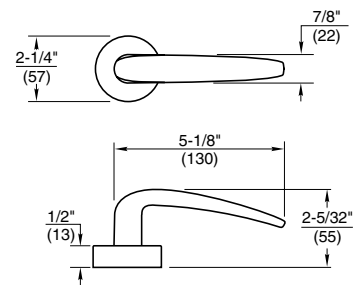
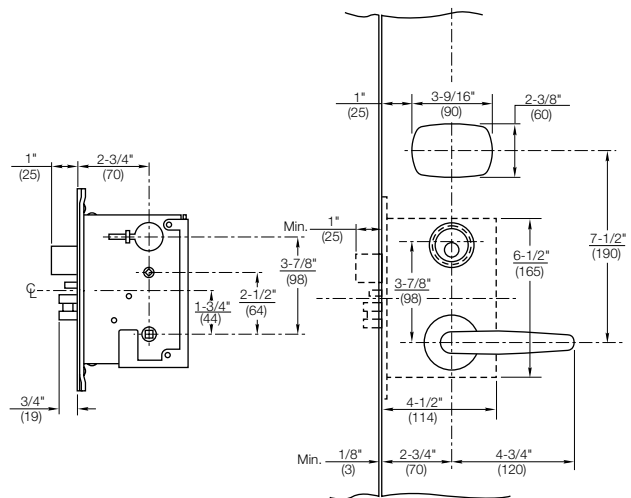**Dimensions are shown in inches (millimeters).**

functions

VCAF52

Without Cylinder Override

- Latchbolt and deadbolt retracted by lever outside with valid keycard, or by operating lever inside.
- Deadbolt projected automatically when the door closes on the frame and trigger meets the strike plate.
- When inside thumbturn is activated, access granted from outside only by keycards programmed with privacy override.
- Operating inside lever retracts the latchbolt and deadbolt simultaneously.
- Deadlocking latchbolt.

Inside   **Outside**

VCAF53

With Cylinder Override

- Latchbolt and deadbolt retracted by lever outside with valid keycard; by use of mechanical key, or by operating lever inside.
- Deadbolt projected automatically when the door closes on the frame and trigger meets the strike plate.
- When inside thumbturn is activated, access granted from outside only by keycards programmed with privacy override.
- Operating inside lever retracts the latchbolt and deadbolt simultaneously.
- Deadlocking latchbolt.

Inside   **Outside**
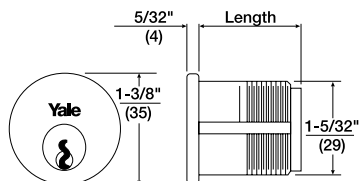
dimensions

installed dimensions
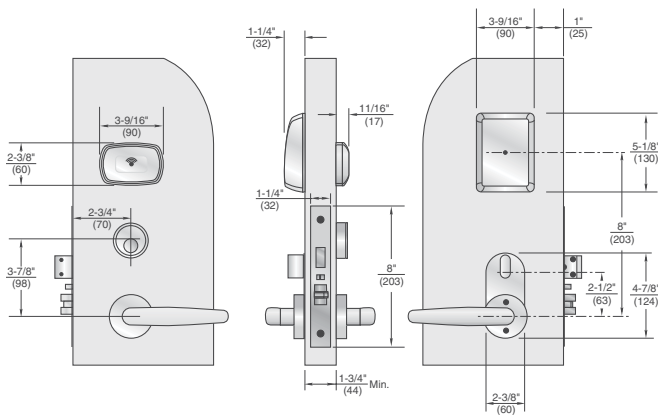
lock dimensions

Dimensions shown are in inches (millimeters).

cylinders

5/32" (4)　Length

1-3/8" (35)

1-5/32" (29)

Keying:
All cylinders furnished standard 6-pin, keyed random in *Yale* PARA keyway, pinned to *Yale* .019" specification. Each cylinder furnished with two nickel silver F-bow keys.

Options:
Cylinders available 0-bitted, uncombinated (UC), keyed alike, master keyed or construction master keyed upon request. Note: UC furnished less pins, springs, spring cover and keys. Yale® KeyMark® cylinders not available 0-bitted.

cam

Cylinders for Affinity® Smart Card Locks require a special cam due to the auto deadbolt feature. Standard Yale® cams will not operate. *Affinity* cams are not available to order separately.
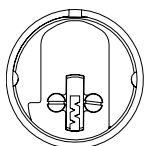
2161 Shown

security cylinders

Security cylinders contain two independent locking mechanisms. The first is a traditional 6- or 7-pin tumbler mechanism with spool drivers for greatly increased picking resistance.

The second is an innovative 5-tumbler rotating disc mechanism with sidebar engagement. The rotating discs are spring loaded and block the bottom of the keyway.

Yale® KeyMark®

For those applications requiring protected key control, Yale® KeyMark® cylinders guard against unauthorized key duplication. The *Yale KeyMark* Security Leg® keyway feature increases resistance against picking and impressioning and can easily retrofit into existing systems. For further details and availability, refer to the separate *Yale KeyMark* catalog.

strikes

Affinity® Series Smart Card Locks use a modified 1-1/4" curved lip strike. The lip is manufactured to the top or bottom edge of the strike in order to operate the automatic deadbolt projection. The automatic deadbolt trigger must meet the curved lip projection in order for the lockcase to operate correctly.

With the modification, the *Affinity* strike is handed and requires a frame modification for frames with preparations to ANSI/BHMA A156.115. See frame detail below.
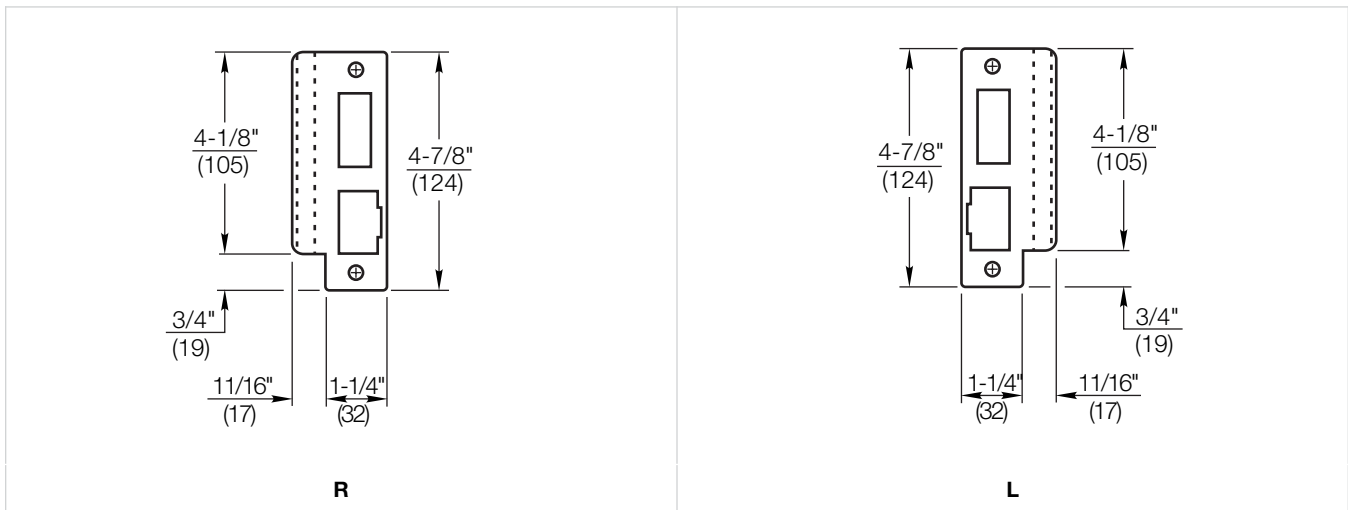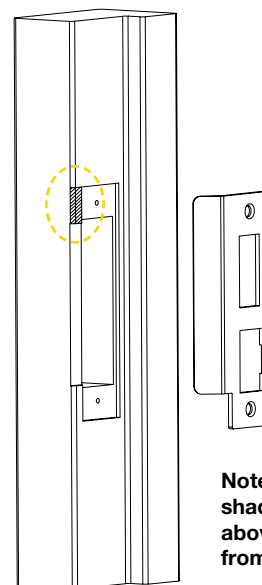

Note: Strike finish will match finish specified for lockset. Strikes are not available to order separately.

The strike provided is determined by the hand of the door. See page 10 for more information on how to hand the door.

Hand of Door	Strike L	Strike R
LH		X
RHR		X
RH	X	
LHR	X	

attaching screws

Special screws are supplied for the strikes. These screws have a smaller head so the automatic deadbolt trigger will operate correctly. Specify if for wood frame or metal frame.

frame detail

Note: Hatched or shaded area circled above is removed from frame.

remote reader

The remote reader is ideal for common doors using different hardware types such as electronic strikes. The remote reader system includes the RFID reader connected to a relay box via a communication cable (max. length 65.6' (20m)). All external devices to be controlled are connected to the relay box. When a valid key card is presented, the reader will send a signal to the relay box and then the connected devices will operate. All remote readers are provided with a heating element which is recommended when the unit is installed in areas where the temperature may fall below 32°F (0°C).

The card reader is available either flush mounted or surface mounted.

Model/ Part Number*	Type	Dimensions	
8405360193R714	Flush Mount	Housing Cover Plate Front Escutcheon	7.9" x 3.3" x 2.5" (200mm x 83mm x 63mm) 8.7" x 4.1" x 0.1" (220mm x 103mm x 2.5mm) 8.2" x 3.6" x 0.7 " (208mm x 91mm x 17mm)
8405360193R716	Surface Mount	Outside	8.2" x 3.6" x 3.1" (208mm x 91mm x 80mm)

Communication Cable

Relay Box

Card Reader

*Includes card reader, relay box, heating element and 65.6' (20m) communication cable.
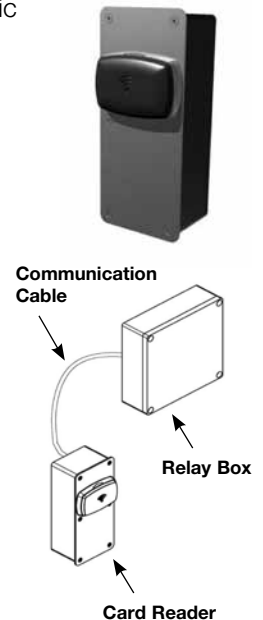
weatherproof housings (optional)

Model/ Part Number	Type	Description
4818962	Hood	Clear acrylic weatherproof housing for use with flush and surface mount remote readers.
8402561	Casing	For use with flush mount readers only (in addition to hood).
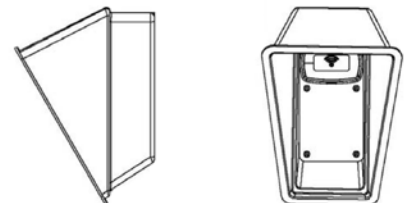
electrical specifications

Card Reader and Relay Box
140 mA @ 12 VDC
140 mA @ 24 VDC

Heating Element
1.6 Amp @ 12 VDC
0.8 Amp @ 24 VDC

power requirements

An external 12V or 24V DC power supply must be connected to the relay box for proper operation. Relay box contains a 9V backup battery for loss of main power.

elevator control

Yale's RFID Elevator Controller for VISION system is designed to fit into elevator panels and can be operated off- or online.

The security level of the hotel will increase, as only guests with a valid keycard will have access to the elevators.

features

- Modern and minimalistic design – based on the same reader unit as for Signature RFID locks.
- Possible to limit access to floors according to each guest or staff keycard's privileges.
- 7 relay outputs to selectively enable the elevator call buttons.
- Can also control different devices such as electric strikes and motor locks.
- Fully compatible with VingCard's VISION system.

technical data

Power requirements:
An External 24V DC (+/- 20%) power supply must be connected to the elevator controller. Current consumption with all relays activated is 200 mA. Standby current is 10mA.

Relay	Max. current	Min. current	Max. voltage	Min. voltage
1-6	1A	1 mA	30 V DC	10mV DC
7	5 A	10 mA	30 V DC	5V DC

Dimensions (HxDxW):
RFID reader: 2-13/64" x 1-27/32" x 3-15/16"
56 x 47 x 100 (mm)

Relay box: 7-3/32" x 7-3/32" x 2-23/64"
180 x 180 x 60 (mm)

Each complete unit, supplied individually packed, consists of:
- RFID Reader with black plastic cover and black plastic frame around the reader.
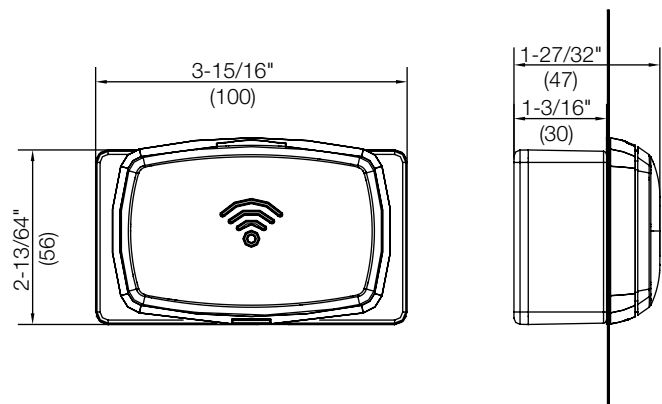- 65.6' (20m) cable.
- Relay box in grey plastic.

External power supply ordered separately.

Note: Contact your local DSS Representative for ordering information.

elevator controller parts

Communication Cable

Relay Box

Card Reader

dimensions

3-15/16" (100)

2-13/64" (56)

1-27/32" (47)

1-3/16" (30)
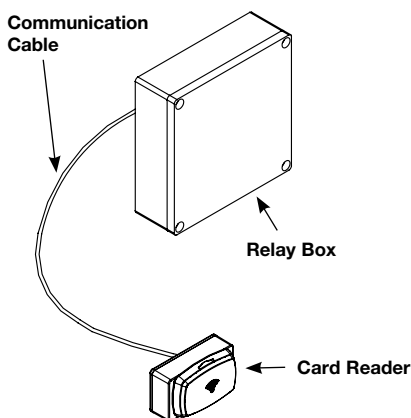
equipment and accessories

The Affinity® Smart Card Lock system requires the following equipment and accessories.

PC with monitor and cables

A desktop computer with monitor is required for operating the Affinity® system. Computer can operate as a stand-alone electronic key programming station, or link with as many terminals as your complex requires. Computer specifications (recommended minimum):
  - 1GHz Processor
  - 0.5GB RAM
  - 40GM Hard Disk
  - At Least 800x600 VGA Resolution
  - At Least 4 USB Ports
  - Ethernet
  - Windows 2000 or XP

Note: Computer to be furnished by others.

- **LAN Cable** - 10 Base T, 5 meter, blue. Specify model number: **0040220**

RFID encoder

Required for programming and updating keycards. Includes power supply. Specify model number: **8901911**

RFID carriers

Multiple options available that are especially designed for different lifestyles.

- **Standard Keycards (1K)** - Provided with Yale Logo. Specify model number: **YALE-RFID**. Minimum order quantity is 500.
- **Long Lasting Keycards (4K)** - Specify model number: **8901925** Minimum order quantity is 250.
- **Keyfobs (1K)** - May be worn on a keychain. Color: Black. Specify model number: **4818599**
- **Wristbands (1K)** - Ideal for exclusive access to facility amenities. Color: Blue. Specify model number: **4818598**

| Standard Keycards | Long Lasting Keycards | Keyfobs | Wristbands |

hand held device

System HW service terminal required for downloading audits. Specify model number: **4821915**.

- **LockLink Software** - For use with hand held device. Specify model number: **0040138**
- **RFID Contact Card -** Used with hand held device to transfer data to/from lockset. Specify model number: **4817700**

VISION by VIngCard®

VISION by VingCard is a full-featured, functionally rich access control system with the power, flexibility and ease of use to meet the operating needs of any multi-family property. To order, specify model number:

Model Number	Number of Units in System
89008817	0-99
89008818	100-199
89008819	200-299
89008820	300+

Features:
  - FCC approved
  - Menu-driven software for user-friendly operation
  - Modular, upgradable software with an array of powerful features
  - Industry standard Windows® 98/2000/NT/XP/VISTA operating system
  - Easily interfaces with existing Property Management Systems
  - "Plug and play" ethernet for simple, fast, reliable networks
  - Powerful and stable SQL Database
  - Up to 256 user groups
  - Up to 16,000 system users
  - Up to 99 card programming stations

software manual

This manual is provided electronically with each software system and required for training and operation of the software.

ordering information

From this outline select the Model Number for the Affinity® Series Smart Card Lock you require.

Trim Design	Function	Cylinder	Handing *Strikes are handed.*	Door Thickness	Finish	Option
See page 4	See page 5	See page 6	See page 3	See page 2	See page 2	See page 3

ordering example

Quantity	Trim Design	Function	Cylinder	Handing *Strikes are handed.*	Door Thickness	Finish	Option
100	VMO	VCAF53	2153	RH	1-3/4"	605	VBC

hand of doors

The outside is the key side of an entrance door or the corridor side of a room door. The outside of a single communicating door is the side opposite the hinges. The outside of twin communicating doors is the space between the doors.

Left Hand: Hinges on left, opens inward. For handed locks, specify LH.

Left Hand Reverse: Hinges on left, opens outward. For handed locks, specify LHR.

Right Hand: Hinges on right, opens inward. For handed locks, specify RH.

Right Hand Reverse: Hinges on right, opens outward. For handed locks, specify RHR.

sample specification

Card access locksets shall be Yale® Affinity® (RFID) Smart Card Locksets marketed through Yale Locks & Hardware. Supplier shall provide the complete package of components required for a fully functional and operational card access control system.

Locksets shall be designed to meet requirements of ANSI/BHMA A156.13, Series 1000, Grade 1 and comply with the ANSI/BHMA A156.25 Electrified Locking Devices standard and ANSI A117.1 Accessibility Guidelines.

1. Backsets: 2-3/4" for 1-3/4" (44mm) thick doors.
2. Latch to be powdered steel 3/4" (19mm) 2-piece, anti-friction deadlocking latchbolt.
3. Deadbolt to be a 1" (25mm) throw, C1020 mill steel deadbolt.
4. Lockset shall have Automatic Deadbolt (ADB) feature.
    a. ADB projects automatically with each door closure when the door closes on the frame and trigger meets the strike plate.
5. UL listed for up to 3 hour fire rating.
6. Locksets shall be available with or with key override.
    a. Locksets with key override shall be capable of accepting *Yale* 6-pin standard, interchangeable core, high-security and patented cylinders with master keying capabilities.
    b. Cylinders shall be 1-1/2" in length.
7. Handles (levers) shall be solid brass and a minimum of 4-1/2" in length.
    a. Locksets shall be handed and not field reversible.
8. Inside lever handle retracts both latchbolt and deadbolt for emergency egress.

Lockset includes an internal, electronically driven motorized locking mechanism powered by 4.5 volts via (3) standard AA batteries. Locksets to have 600 event audit capabilities and LED indication providing low battery status detection.

Yale Affinity Smart Card locksets shall carry a one-year mechanical warranty.

Affinity Smart Card Locks shall be furnished with required equipment and accessories and include, but are not necessarily limited to, the following: VISION by VingCard® software, RFID encoder, portable PC unit for downloading audits with software and optional RFID carriers such as keycards, keyfobs or wristbands.

notes

online literature and templates

For the latest information on Yale Locks & Hardware products, visit our website at www.yalelocks.com.

Click on the "Literature" button to find:

- Catalogs
- Parts manuals
- Templates
- Specifications
- Installation instructions

Yale® customers can click on the ebusiness symbol ⬤n the website to register for an ebusiness account to:

- Check the status of orders
- Check availability of Quick-Ship items
- Track your order and confirm delivery
- Receive email notification of template changes
  And More...

www.yalelocks.com

Yale Locks & Hardware
Address: 225 Episcopal Road, Berlin, CT 06037-4004 USA
Tel: 1-800-438-1951 ● *Fax:* 1-800-338-0965 ● www.yalelocks.com

ASSA ABLOY Door Security Solutions - Canada
Address: 160 Four Valley Drive, Vaughan, Ontario L4K 4T9 Canada
Tel: 1-800-461-3007 ● *Fax:* 1-905-738-2478 ● www.assaabloy.ca

ASSA ABLOY NA International
www.aanai.com

YALE, *with its unique global reach and range of products, is the world's favorite lock.*

ASSA ABLOY *is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience.*

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