

Electromechanical Door Solutions

ASSA ABLOY

The global leader in
door opening solutions



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Aperio[®] Technology



Aperio® Overview

Aperio is a new technology developed to complement new and existing electronic access control systems; providing end users with a simple, intelligent way to upgrade the controllability and the security level of their premises.

The heart of Aperio is a short distance wireless communication protocol; designed to link an online electronic access control.

Application

An access control system is standard equipment for companies and public administrations and provides buildings with a very high standard of security. However, installing access control doors is very expensive due to the extensive wiring required. This is why access control systems often only cover doors with very high security requirements.

All other doors have mechanical locks and therefore cannot be monitored and managed. If a master key is lost, there can be a major security risk – not a satisfactory set of circumstances for security officers.

This is where Aperio technology comes in. Doors merely need to be equipped with wireless Aperio battery-powered cylinders, escutcheons or locks with integrated RFID readers and linked to the access control system online via a communications hub. ASSA ABLOY's Aperio technology allows security and facility managers to conveniently and cost effectively increase the number of doors that can be monitored.

Aperio's HID genuine certified technology supports a range of credentials including iCLASS, MIFARE, DESFire, SEOS, Legic and 125 kHz Proximity (HID PROX/ EM410).

Key Features

Affordable online door control of internal doors

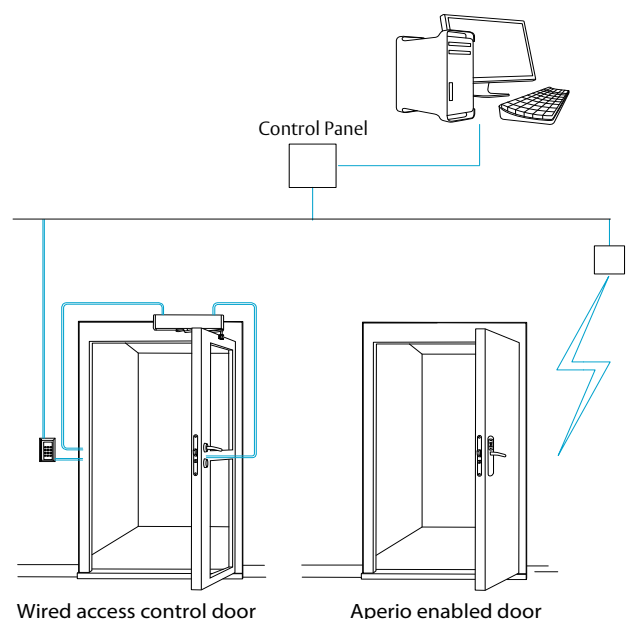
- Few components
- Very easy installation
- No changes to existing access control installations

Extends existing access control system

- Connects over standard interface
- No separate management software:
 - Uses existing access control system management software
- No change of cards

Enhances security for internal doors

- Eliminates key management issues
- Authorisation changes in real time
- Encrypted communication
- Audit trails and time zones through existing system



H100 Handle

The new Aperio® H100 packs the power and flexibility of wireless access control into one slim, cleverly designed, battery-powered door handle. With easy retrofitting to almost any interior door and comprehensive RFID support, the new Aperio® H100 handle makes it cost-effective to boost security for sensitive offices, storerooms, archives, meeting rooms and more.

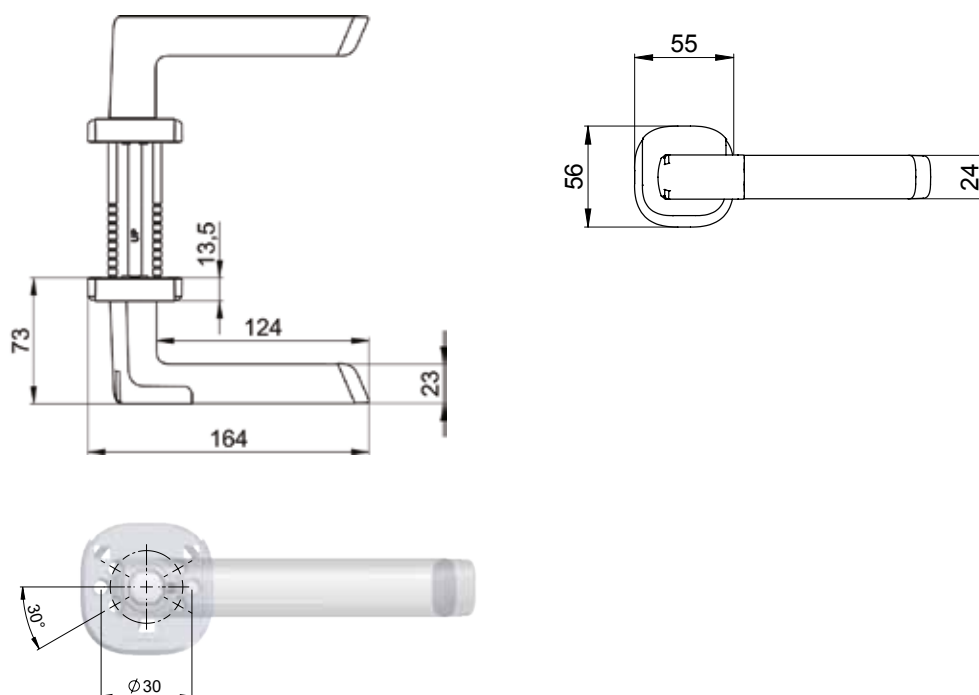
Key Features

- The easiest way to add access control to a mechanical lock without drilling
- Robust, wireless device designed for high-traffic environments
- Compatible with Australian mortice lock (8mm)
- For wooden, steel and tubular-frame doors (and glass doors with standard lock cases)
- Keep your existing mechanical cylinder
- Straightforward integration with third-party access control systems
- Works with an online system or as an offline lock
- Discrete handle with minimum footprint and contemporary design
- LED for instant status visualisation
- Takes one screw to replace handle batteries
- Supports the following RFID technologies: MIFARE Classic®, MIFARE Ultralight®, MIFARE® DESFire®, MIFARE Plus®, MIFARE® SE, MIFARE® DESFire® SE; iCLASS SE; iCLASS Seos®, iCLASS Seos Elite



MIFARE™
CLASSIC / PLUS

MIFARE™
CLASSIC DESFire™



H100 Technical Information

Battery type	1 x Lithium CR123A
Battery lifetime	>40,000 cycles
Radio standard	IEEE 802.15.4 (2.4 GHz)
Encryption	AES 128 bits
RFID technology**	MIFARE Classic®, MIFARE Ultralight®, MIFARE® DESFire®, MIFARE Plus®, MIFARE® SE, MIFARE® DESFire® SE; iCLASS SE; iCLASS Seos®, iCLASS Seos Elite
RFID reading	UID / Sektor / Block / Application / File
RFID reading range	< 4cm
Operating temperature	0°C to 55°C
IP-degree	IP 65
Authentication	One level of authentication - CARD only
Status	LED (red/green/orange)
Communication inter-faces	Communication via radio (USB dongle) or USB type B adapter (accessory)
Offline and Online operation modes	Aperio® Online; Aperio® Offline; Aperio® Standard OSS Offline
Approvals	CE, EN1906: 26-B010B RCM

Ordering Information

Product Description	Part Number
Aperio H100 Handle, Right, 8mm Spindle	H100AU8R-SC
Aperio H100 Handle, Right, 8mm Spindle with Mortice Lock	H100AU8R-SC-B
Aperio H100 Handle, Left, 8mm Spindle	H100AU8L-SC
Aperio H100 Handle, Left, 8mm Spindle with Mortice Lock	H100AU8L-SC-B

Accessories

Product Description	Part Number
U-Handle or RTD Adapter Set of 2 Items (Battery Holder End-Cap & Dummy End-Cap)	AH100-001
Aperio USB Firmware Adapter for use in battery compartment	AH100-010
H100 Distance Ring for inner doors thinner than 35mm	AH100-020

C100 Knob Cylinder

Key Features

- Communication from hub via RS485 bus to the Online Access Control System (addressable) - access decision in the EAC system
- Compatible with Australian standard mortice lock
- Main electronics (RFID + radio) in the outside knob - secure electronics inside cylinder core
- Freely rotating lock cam
- Override Credentials: Up to 10 override credentials can be stored for an emergency access in case of failure or no communication with the access control or the hub
- Smart Credential Handling: In addition to the override credentials, the last valid credentials (up to 1000) can be cached automatically and for a limited time (up to 30 days), so that an opening can still be made without the intervention of the administrator
- LED for status visualisation (red/green/orange)
- Works with an online system or as an offline lock
- Supports the following RFID technologies: MIFARE Classic®, MIFARE Ultralight®, MIFARE® DESFire®, MIFARE Plus®, MIFARE® SE, MIFARE® DESFire® SE; iCLASS SE; iCLASS Seos®, iCLASS Seos Elite

Scope of delivery

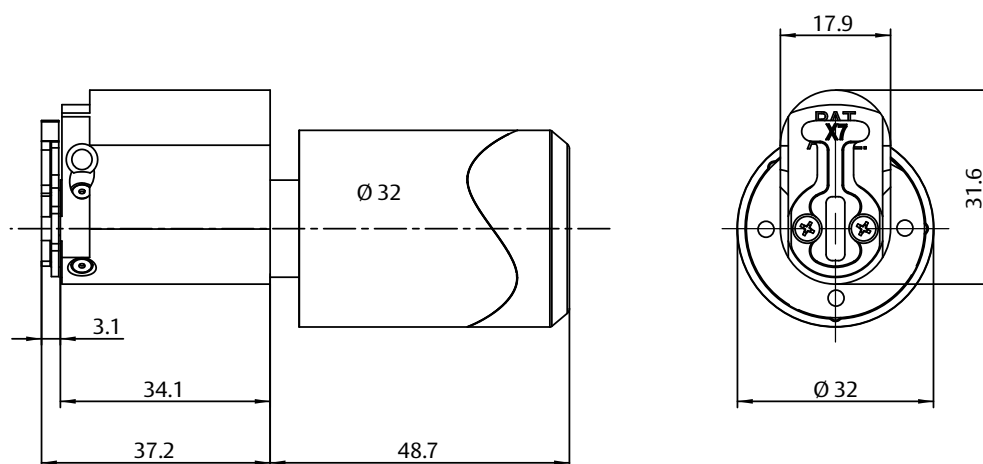
- 1 single knob cylinder with battery (Lithium CR2) and installation instructions
- Screws and fixing material
- Battery change tool



MIFARE™
CLASSIC®/PLUS

MIFARE™
CLASSIC®/DESFire®

C100 Knob Cylinder



C100 Technical Information

Battery type	1 x Lithium CR2
Battery lifetime	<30,000 cycles (max 2 years)
Radio standard	IEEE 802.15.4 (2.4GHz)
Encryption	AES 128 Bit
Wireless range: Cylinder to Hub	5-25m depending on location of Hub & environment
RFID technology**	MIFARE Classic®, MIFARE Ultralight®, MIFARE® DESFire®, MIFARE Plus®, MIFARE® SE, MIFARE® DESFire® SE; iCLASS SE; iCLASS Seos®, iCLASS Seos Elite
RFID reading	UID / Sektor / Block / Application / File
Card reading range	< 4cm
Operating temperature	-20° to +55°C
IP-degree	IP 65
Knob colour	Black / Satin Chrome
Cylinder Colour	Satin Chrome
Cylinder format	Lockwood Australian oval 570 series
Door thickness	Suits standard doors up to 50mm
Approvals	CE and RCM
Status	LED (red/green/orange)

Ordering Information

Product Description	Part Number
Aperio C100 Cylinder SC V3	C103HFASS

Accessories

Product Description	Part Number
Aperio Hub 1:8 RS485 Hub	AH30-3-0
AH40 Aperio 1:8/16 IP (Ethernet) Hub	AH40-4-0

P100 Padlock

Key Features

- Communication from hub via RS485 bus to the Online Access Control System (addressable) - access decision in the EAC system
- Main electronics (RFID + radio) in the outside knob - secure electronics inside cylinder core
- Freely rotating lock cam
- Override Credentials: Up to 10 override credentials can be stored for an emergency access in case of failure or no communication with the access control or the hub
- Smart Credential Handling: In addition to the override credentials, the last valid credentials (up to 1000) can be cached automatically and for a limited time (up to 30 days), so that an opening can still be made without the intervention of the administrator
- LED for status visualisation
- Works with an online system or as an offline lock
- Supports the following RFID technologies: MIFARE Classic®, MIFARE Ultralight®, MIFARE® DESFire®, MIFARE Plus®, MIFARE® SE, MIFARE® DESFire® SE; iCLASS SE; iCLASS Seos®, iCLASS Seos Elite

Scope of delivery

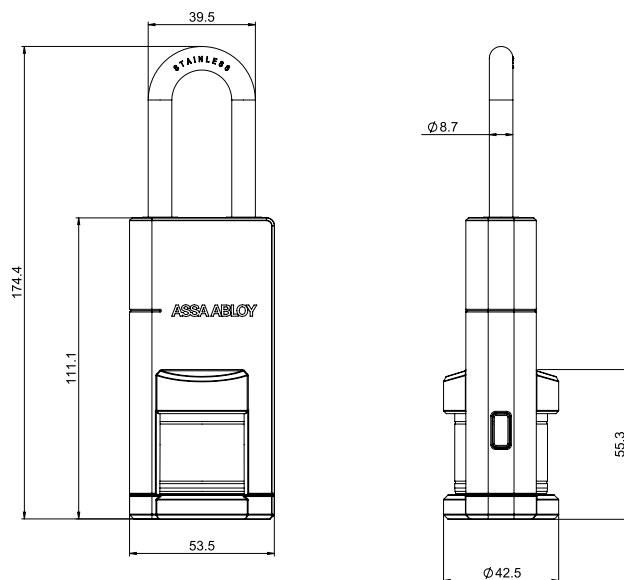
- 1 Padlock assembly with battery inserted and install instructions
- Battery change tool



MIFARE™
CLASSIC®/PLUS

MIFARE™
CLASSIC®/DESFire®

P100 Padlock



P100 Technical Information

Battery type	1 x Lithium CR2
Battery lifetime	<30,000 cycles (max 2 years)
Radio standard	IEEE 802.15.4 (2.4GHz)
Encryption	AES 128 Bit
Wireless range: Cylinder to Hub	5-25m depending on location of Hub & environment
RFID technology**	MIFARE Classic®, MIFARE Ultralight®, MIFARE® DESFire®, MIFARE Plus®, MIFARE® SE, MIFARE® DESFire® SE; iCLASS SE; iCLASS Seos®, iCLASS Seos Elite
RFID reading	UID / Sektor / Block / Application / File
Card reading range	< 4cm
Operating temperature	-20° to +55°C
IP-degree	IP 65
Case Colour	Black
Approvals	CE and RCM

Ordering Information

Product Description	Part Number
Aperio P100 Padlock V3	P100-100

Accessories

Product Description	Part Number
Aperio Hub 1:8 RS485 Hub	AH30-3-0
AH40 Aperio 1:8/16 IP (Ethernet) Hub	AH40-4-0

AU100 Series Escutcheon

ASSA ABLOY's Aperio® technology is leading the evolution of Online Wireless Door Locks. The new AU100 is a fully commercial grade digital lockset that offers the durability and quality that is synonymous with ASSA ABLOY.

Aperio is well known to provide a cost effective migration to an online electronic access control door. ASSA ABLOY's AU100 is now fully retrofit-able with Lockwood mortise variants without modification to the mortise whatsoever.

In addition, for the first time the internal lever and door position can now be wirelessly monitored. A capacitive keypad and proximity reader are also included in the one lock.



Sophisticated battery powered technology communicates wirelessly to a hub. The hub is then wired directly to the access control system and enables standard online access control functionality at significantly reduced costs to that of a hard wired door.

The AU100 enables high frequency entrance doors to operate for two years on a standard set of batteries; maintaining remote opening functions of typically 5 seconds communication time between the Aperio lock and the access control system throughout the battery life.



The AU100 features ultra-smooth lever action provided by the ergonomic Lever: 77A. Designed to be compliant with the Australian Disabled Door Act, the AU100 has undergone severe vandal testing and has a strength rating of up to SL8.

This lock sets the benchmark for premium wireless digital locking with its strong vandal proof keypad.

AU100 Series Escutcheon

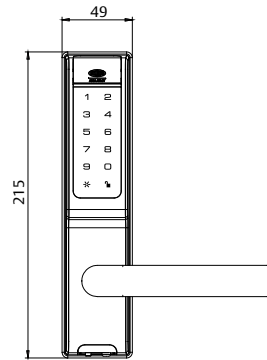


The AU100 is available in a range of form factors including: the popular 530 latch option (non key override) and 60mm and 30mm backset variants.

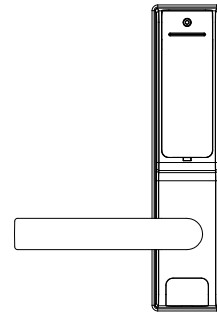
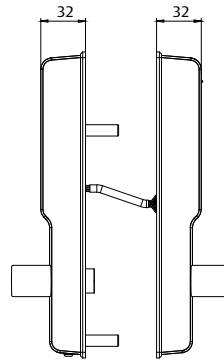
You may also use the 530 version on a Mortice lockset and not use the override cylinder feature.



AU100-530



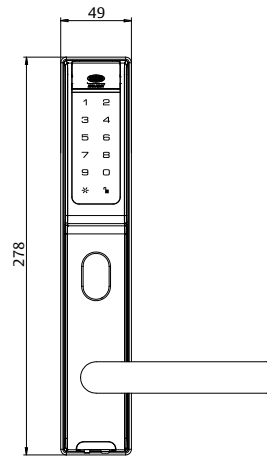
Exterior



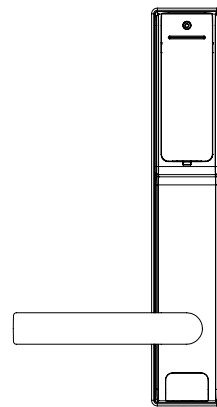
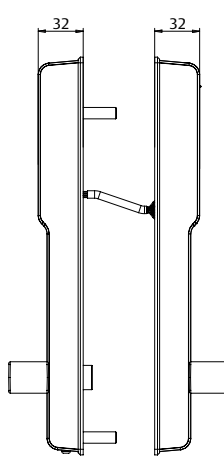
Interior



AU100-3772



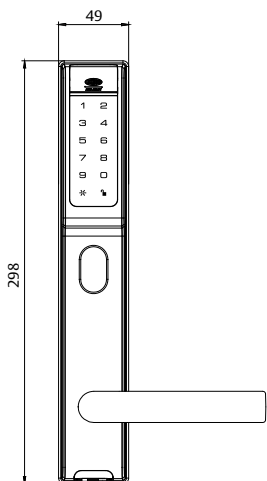
Exterior



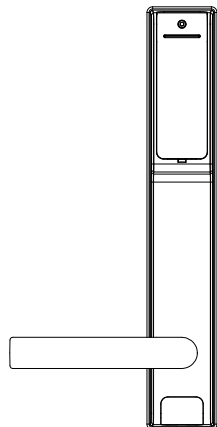
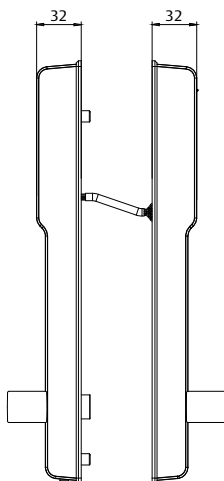
Interior



AU100-5782



Exterior



Interior

AU100 Series Escutcheon

Electronic Features

- Wireless online access control
- Authorisation changes in real time
- Audit trails and time zones managed through existing system
- Additional Key Override
- Rex (internal lever monitoring)
- Door position switch
- Smart off line credential cache for last 200 users
- Store last 200 events and audit trails locally in the lock
- Battery powered – up to 40,000 operations
- LED status
- Battery low warning sent to EAC system
- Powerful new electronics with USB interface
- Supports multiple RFID credentials and SEOS mobile access
- Heartbeat communication: 5-10 seconds
- Remote door opening/locking functions
- Supports multiple high frequency RFID technologies and SEOS mobile access
- Audit trails and time zones managed through existing system

Mechanical Features

- Emergency egress
- Compatible with Lockwood 3772 and 5782 Series Mechanical Mortice Locks
- Additional key override
- Fire rated
- Multiple lockset formats
- Emergency egress



Functions

External - lever is always locked. To unlock badge card and activate lever

Door automatically re-locks after set time. Can also be opened via key override

Keypad – Touch keypad to wake up unit, enter pin and activate lever

Internal - lever is set to escape free egress at all times

REX - Allows the access control to recognise valid egress when the internal lever is pressed followed by DPS

DPS – Allows the access control system to detect DOTL and forced door

Applications

- Internal doors and semi protected outdoor
- Retrofit mechanical Mortice Locks
- Expand existing access control installations
- New access control installations
- Doors that can't be hard wired
- Heritage listed buildings

Electronic Technical Information

Battery Type	4 x AA Alkaline
Battery Lifetime	>40,000 cycles
Radio Standard	IEEE802.15.4 (2.5GHz)
Encryption	AES128Bit
Wireless Range	5-25m depending on location of Hub & Environment
RFID Technology	Mifare Classic / Desfire, Mifare Classic / Plus iCLASS / SEOS
RFID Reading	UID/sector/block
Card Range	>2cm
Operating Temperature	-20°C - 60°C
Humidity	<85% non condensing
Approvals	RCM CE
Finish	Brushed Satin Chrome
Door Thickness	35-50mm

Standards and Compliance

	Successfully tested up to 2 hours on fire door assemblies in accordance with Australian Standard AS1905.1 2005 - Part 1: Fire Resistant Doorsets
SL8	(Security) Australian Lock Standard (AS4145.2:1993)
DL8	(Durability) Australian Lock Standard (AS4145.2:1993)
	Australian Electrical Regulatory Compliance
CE	European Electric Compliance

Product Details

	AU100-530	AU100-3772	AU100-5782
Finish	SC	SC	SC
Backset	60mm	60mm	30mm
Lever	77A	77A	778A
Door Thickness	35-50mm	35-50mm	35-50mm
Body Material	Zinc Alloy	Zinc Alloy	Zinc Alloy
Override Cylinder	No	Yes	Yes
Lock Type	Tubular Latch 530	Suited for 3570 and 3770	Suited for 5580 and 5780
Door Application	Retrofit Latch	Timer door 60mm Backset	Metal or Aluminium narrow Style doors 30mm Backset

AU100 Escutcheons only

Product Description	Part Number
Aperio AU100 V3 keypad + reader 3772 ver 35-50mm door no lock	AU103MU2SC1/2
Aperio au100 v3 keypad + reader 5782 ver 35-50mm door no lock	AU103MU2SC1/3
Aperio au100 v3 keypad + reader 530 ver 35-50mm door with 530 latch	AU103MU2SC1/1
Aperio au100 v3 keypad + reader 3772 ver 35-50mm door with lock	AU103MU2SC1/2/3772

AU100 Accessories

Product Description	Part Number
Aperio hub 1:8 rs485	AH30-3-0
Loom cable	CTXLOOM
530 spindle & accessory pack screw cover 30-50mm	CTXACCPK1
3772 spindle & accessory pack screw cover 30-50mm	CTXACCPK2
5782 spindle & accessory pack screw cover 30-50mm	CTXACCPK3

E100 Series Escutcheon

The E100 series escutcheon is designed to fit Lockwood mechanical 3570 series mortice locks and provide a cost effective migration to an online electronic access control door. In addition to card access the external side of the door provides for key override entry, whilst the inside lever is designed for emergency egress.

The external plate incorporates a sophisticated battery powered proximity reader that communicates wirelessly to a hub. The Hub is then wired directly to the access control system and enables standard online access control functionality at significantly reduced costs to that of a hard wired door.

Key Features

- Wireless online access control
- Authorisation changes in real time
- Audit trails and time zones managed through existing system
- Compatible with Lockwood 3570 series mechanical mortice locks
- Additional key override
- Emergency egress
- Lock can store up to 10 override credentials/prox cards
- Store last 200 events and audit trails locally in the lock
- Battery powered – up to 40,000 operations
- LED status
- Battery low warning sent to EAC system

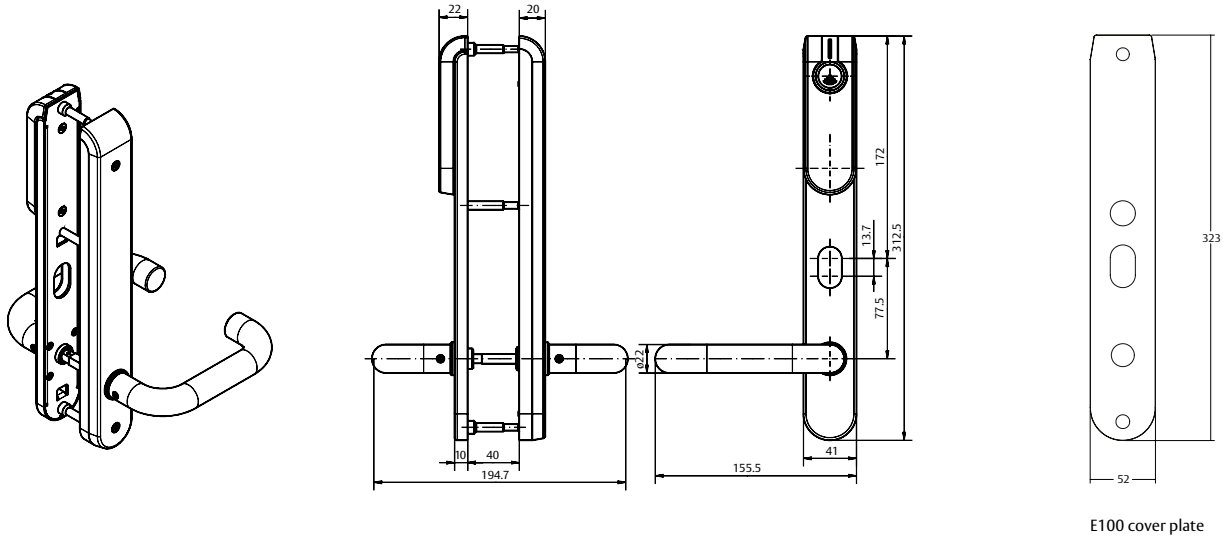
Applications

- Internal doors only
- Retro fit mechanical mortice locks
- Expand existing access control installations
- New access control installations
- Doors that cant be hard wired
- Heritage listed buildings



Function

- **External** lever is always locked.
To unlock badge card and activate lever.
Door automatically re-locks after set time.
Can also be opened via key override.
- **Internal** lever is set to escape free egress at all times.



E100 Technical Information

Battery type	1 x Lithium CR123A
Battery life time	>40,000 cycles
Radio standard	IEEE 802.15.4 (2.4GHz)
Encryption	AES128 Bit
Wireless range	5-25m depending on location of hub & environment
RFID technology**	Mifare Classic / Desfire, Mifare Classic / Plus iCLASS and Prox 125 KHz
RFID Reading	UID / sector / block
Card read range	< 4cm
Operating temperature	0°C – 60°C
Humidity	< 85% non condensating
IP-degree	IP30
Approvals	CE
Colour	Brushed stainless steel
Override cylinder	Lockwood Australian oval 570 series
Door Thickness	35mm to 85mm requires spindle to suit
Spindles	7.6mm
Backset	60mm

** Model dependant

Ordering Information

Product Description	Part Number
E100 V2 35-45 Door Mifare Classic / Desfire	E102MU1SS1
E100 V2 46-55 Door Mifare Classic / Desfire	E102MU1SS2
E100 V2 35-45 Door iCLASS	E102IU1SS1
E100 V2 46-55 Door iCLASS	E102IU1SS2

Accessories

Product Description	Part Number
E100 Cover Plate – Pair	E100-PL2SSS
Aperio Hub 1:8 RS485 Hub	AH30-3-0
3572 Series Mortice Lock To Suit E100 Series	3572SCNOHD

Spare Parts

Product Description	Part Number
Aperio Spindle Kit 35-45mm	E-SP35/45
Aperio Spindle Kit 45-55mm	E-SP45/55

Notes:

- E100 cover plate is used only if required when retro fitting existing door furniture.
- Each cover plate is 1.2mm thick. A total of 2.4mm should be added to door thickness if using these plates
- To change the spindle; special tools may be required



KS100 Series Server Cabinet Lock



The KS100 server cabinet lock is a convenient way to bring real-time access control in a single-card system to individual server cabinet doors.

This greatly improves the monitoring and security level of each server cabinet. It uses existing access control cards so there are no keys to control or replace and no codes to secure or remember.

It also uses local wireless communication between the lock and an Aperio® hub to connect to the access control system, eliminating the cost and difficulty of bringing integrated access control to the cabinet.

Key Features

- Wireless online access control
- Authorisation changes in real time
- High security Grade 1 asset protection
- Server cabinet door and lock status monitoring
 - 250 lb holding force, Grade 1 rating per ANSI A156.11-2003
 - Online & offline transaction audit trail capabilities.
- Fast, easy to install wireless lock tied to existing electronic access control system infrastructure
- Maintenance free Hardwired power; POE (Power over Ethernet) 48VDC or standard 8-24VDC - Low energy use
- Two forms of override available, including
 - Mechanical key override or offline credential
- Store up to 10 override credentials on lock locally
- LED Status indication
- Designed for standard 25mm x 100mm server lock opening
- For use on left hand or right hand doors



KS100 Technical Information

Power	48VDC Power over Ethernet (PoE) 802.3af compliant 8-24VDC, 250mA
Radio standard	IEEE 802.15.4 (2.4Ghz)
Encryption	AES128 Bit
Wireless range	5-25m depending on location of hub & environment
RFID Technology	iClass, Mifare, Desfire and 125 KHz Prox (prox separate model)
Card read range	Card read range < 3cm
Operating Temperature	0-50°
Finishes	Black
Product dimensions	42W x 34 D x 223 H Suitable for 25mm x 150mm server lock openings
Approvals	FCC Part 15, Compliant, Industry Canada Compliant BHMA: A156.3, A156.36, A156.25 Compliant

KS100 Series Server Cabinet Lock

Internal Applications

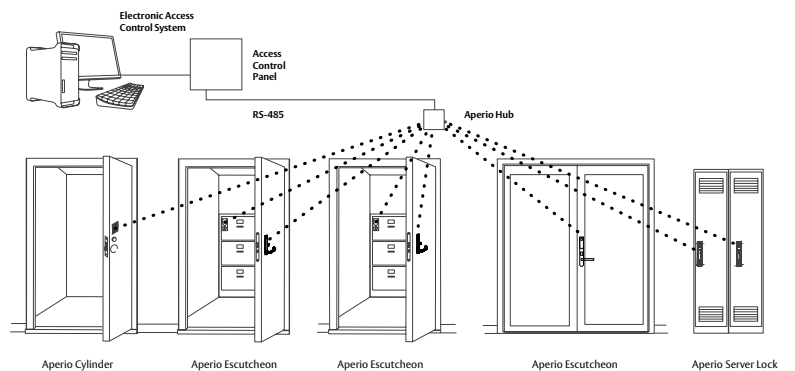
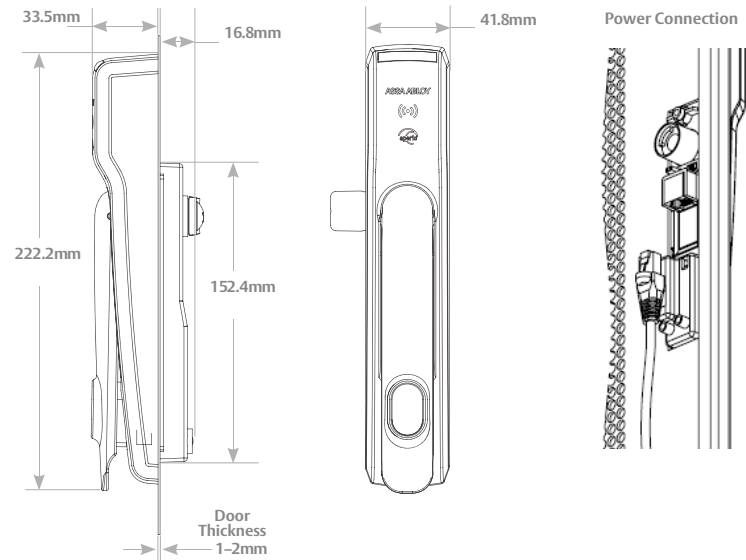
Single door data storage cabinets
Ideal for collocation data centres with multiple companies requiring access

Function

External lever is always locked. To unlock present card and rotate lever clockwise

Server Lock

Rotate lever clockwise, close data cabinet.
Rotate lever anti clockwise



Ordering Information

Product Description	Part Number
KS100 server cabinet lock LF	KS102MB
KS100 server cabinet lock PX	KS102PB

K100 Series Cabinet Lock



The K100 series cabinet lock makes it easy and cost effective to bring access control to cabinets and drawers where audit trail and monitoring are becoming increasingly critical. It uses local wireless communication between the lock and an Aperio® hub to connect to an access control system, eliminating the cost and difficulty of bringing integrated access control to the cabinet.

The lock incorporates a sophisticated battery powered reader with 30,000 cycles of operation with a single CR123A battery.

Key Features

- Wireless online access control
- Authorisation changes in real time
- High security Grade 1 asset protection with audit control
 - Cabinet lock latch bolt status monitoring
 - 112kg (250 lb) holding force, Grade 1 rating per ANSI A156.11-2003
- Fast, easy to install wireless lock tied to existing electronic access control system infrastructure
- Low maintenance with 50,000 cycles of operation with a two AA lithium batteries
- Two forms of override available, including mechanical key override and battery jump start pack
- Store up to 10 override credentials on lock locally
- LED status
- Battery low warning sent to EAC system

Internal Applications

Single door cabinets and Drawers

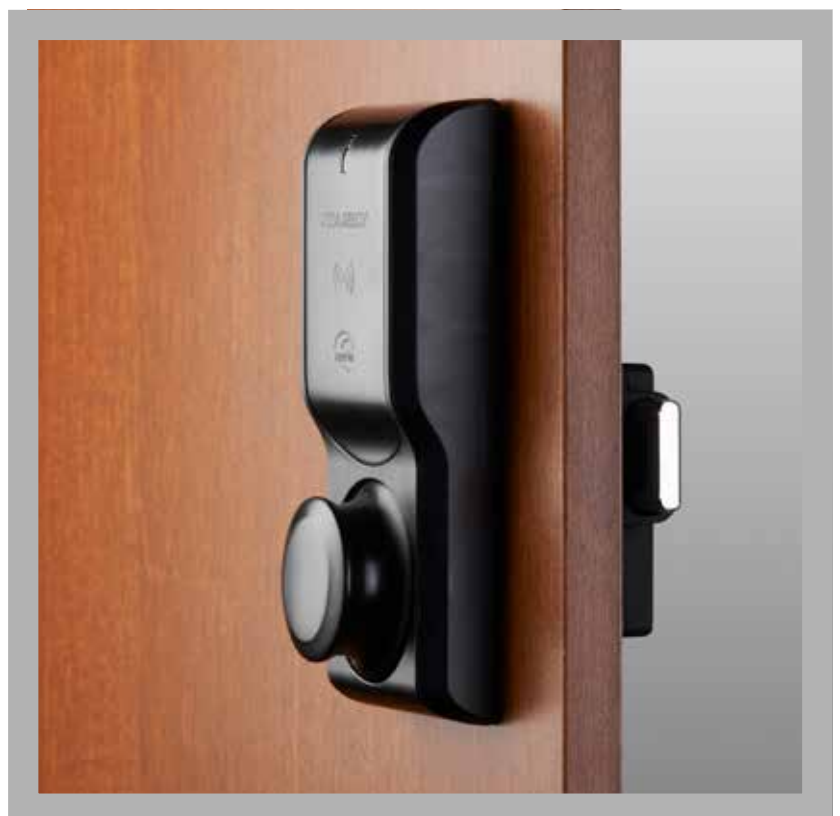
Function

Unlock

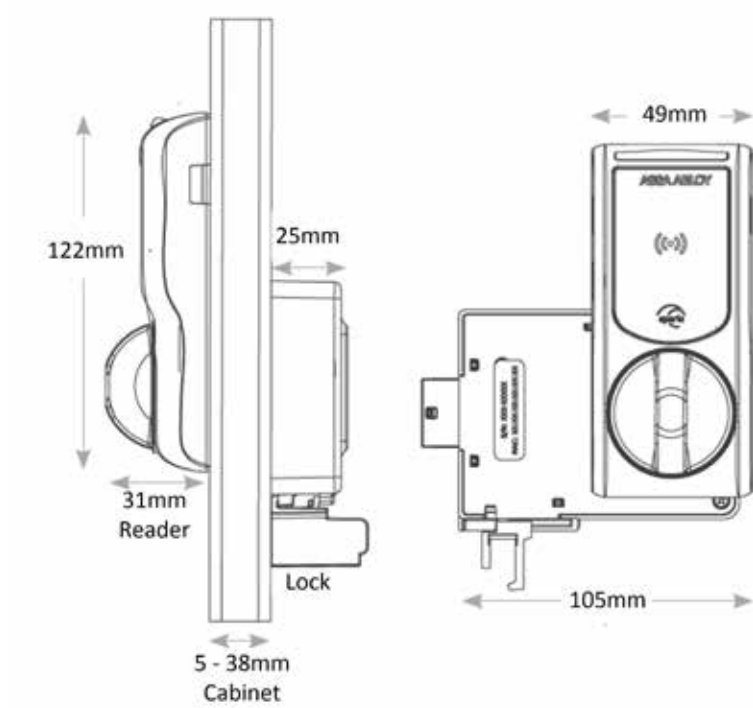
External knob is always locked. To unlock present card and turn knob anti-clockwise

Lock

Push cabinet or drawer closed until latched. Lock with automatically relock



K100 Series Cabinet Lock



K100 Technical Information

Battery Type	Two AA Lithium
Battery Lifetime	50,000 operations
Radio Standard	IEEE 802.15.4 (2.4Ghz)
Encryption	AES128 Bit
Wireless Range	5-25m depending on location of hub & environment
RFID Technology	iClass, Mifare, Desfire and 125 KHz Prox (prox separate model)
Card Read Range	< 3cm
Operating Temperature	0-50°
Approvals	CE Ctick & ANSI A156.11-2003 Grade 1
Finishes	Black or White
Cabinet Thickness	13-38mm

Ordering Information

Product Description	Part Number
K100 Cabinet Lock Black	K102MB
K100 Cabinet Lock White	K102MW

Accessories

Product Description	Part Number
620 Jumpstart Pack	620JSPK100
Aperio Hub 1:8 RS485	AH30-3-0
Aperio USB Dongle	APRD1/PAP1

R100 Surface Mount Reader



The R100 series surface mounted wireless reader offers an elegant way to extend access control to glass, stone, granite and marble entryways. The easy-to-install wireless reader, requires no drilling or pulling of wires and adheres quickly to the outside of a glass door.

Glass entryways can now integrate robust access control while maintaining a clean, wireless appearance.

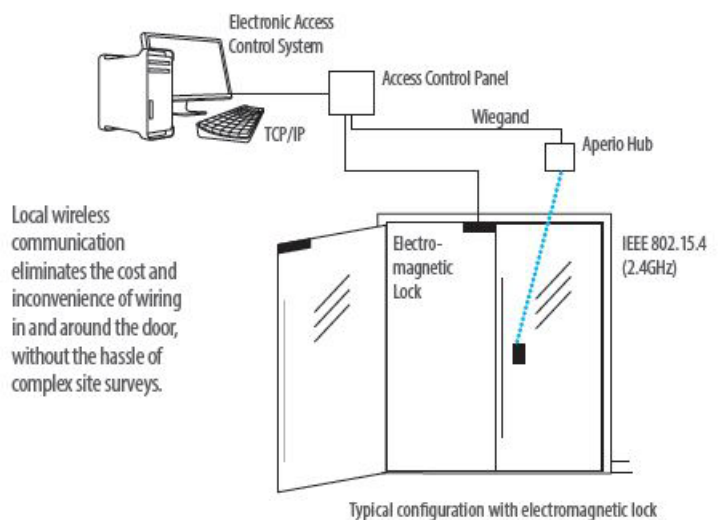
Available in both standard Aperio® integration and a prepaired Weigand Aperio® Hub for connection to any access control system.

Key Features

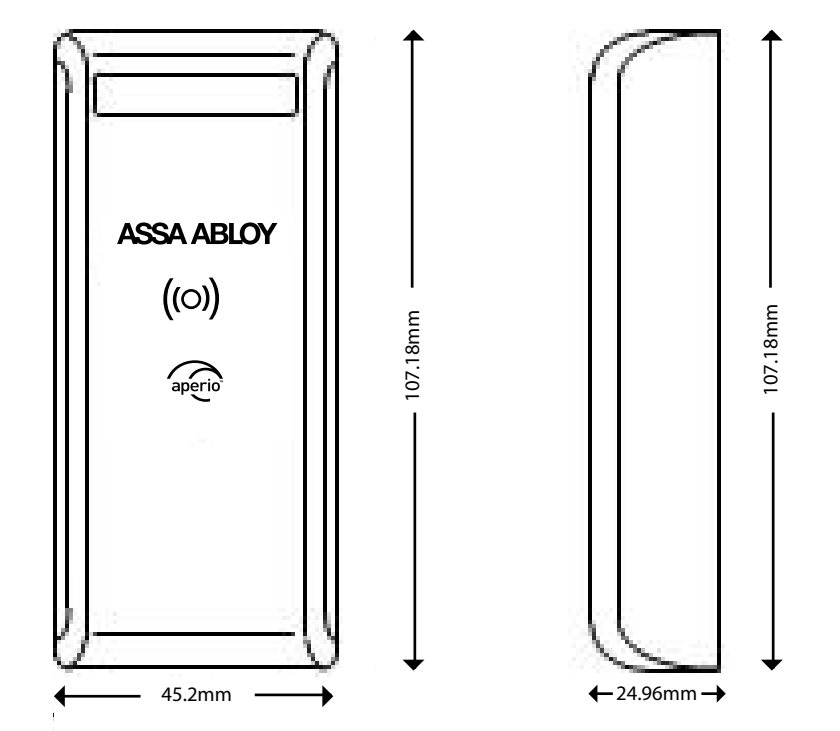
- Wireless online access control
- Authorisation changes in real time
- High security Grade 1 asset protection with audit control
- Fast, easy to install wireless reader tied to existing electronic access control system infrastructure
- Low maintenance with 35,000 cycles of operation with a single CR2 battery
- Store up to 10 override credentials on lock locally
- LED Status
- Battery low warning sent to EAC system

Applications

- Glass Door Entryways
- Granite or Marble Facades



R100 Surface Mount Reader



K100 Technical Information

Battery Type	Cr123A Lithium
Battery Lifetime	35000 operations
Radio Standard	IEEE 802.15.4 (2.4Ghz)
Encryption	AES128 Bit
Wireless Range	5-25m depending on location of hub & environment
RFID Technology	iClass, Mifare and 125 KHz Prox (prox separate model)
Card Read Range	< 3cm
Operating Temperature	0-50°
Approvals	CE Ctick & ANSI A156.11-2003 Grade 1
Finishes	Black

Ordering Information

Product Description	Part Number
R100 Wireless Surface Mount Reader	R102MB
R100 Wireless Surface Mount Reader & Wiegand Hub	R102MBH

Accessories

Product Description	Part Number
Aperio Hub 1:8 RS485	AH30-3-0
Aperio USB Dongle	APRD1/PAP1

The communication Hub is the link between Aperio Locks and the access control system. Depending on the type of Hub used, up to 8 locks can be paired with one Hub.

The hub communicates directly with the locks over an encrypted 2.4ghz wireless.

There are four communication hub types, Depending on the access control system you are connecting the hubs to will depend on the type of hub selected.

AH15

The AH15 utilises a standard Wiegand interface between the Hub and the access control system and is designed to communicate over a range of 5m to the lock it is paired with.

AH20

The AH20 utilises a standard Wiegand interface between the Hub and the existing access control system and in addition provides 4 relays to provide a low level interface to report, low battery, Lock Jamb, Unlocked and Lock Offline. The hub is designed to communicate with a lock within a 25m range.

AH30

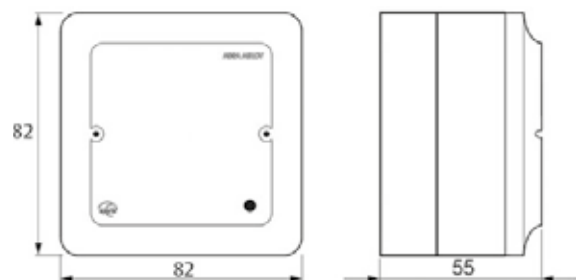
The AH30 utilises a RS-485 connection between the Hub and the access control system. The hub is designed to communicate with up to 8 locks within a 25m range.

AH40

The AH40 utilises an IP (Ethernet) connection between the Hub and the access control system. The Hub is designed to communicate with up to 8 locks within a 25m range. The AH40 can be powered via both an external power supply and POE 3.5w

Key Features

- Connect up to 8 Aperio Devices to a single hub
- Different interfaces allowing connection to a wide range of access control systems
- 128 Bit AES Encrypted Radio Communications
- Integrated antenna
- Led Status for visual indication
- Applications – Same as



Communication Hub Technical

Hub Version	Interface	Max. No. of Locks
AH15	Wiegand	1
AH20	Advanced Wiegand	1
AH30	RS-485	8
AH40	IP (Ethernet)	8

Ordering Information

Product Description	Part Number
AH15 Aperio 1:1 Standard Wiegand Hub	AH15-1-0
AH20 Aperio 1:1 Advance Wiegand Hub	AH20-2-0
AH30 Aperio 1:8 RS485 Hub	AH30-3-0
AH40 Aperio 1:8 IP(Ethernet) Hub	AH40-4-0

Software & USB Radio Dongle

The Aperio® Programming Application is the software tool used to set up and programme Aperio® based products.

Using the software the installer simply plugs in the USB radio dongle to the PC to communicate directly to the Aperio® lock via the Communication Hub.

The software has an encrypted installation data base that can be used to manage any number of sites.

Key Features

Software

- Multilingual installation tool
- Encrypted installation database
- Installation management:
 - Unit configuration
 - Firmware update
 - Pair/Un-pair
 - Override credentials
 - Wireless status link
 - RS485 settings

Radio Dongle

- Provides communication to Aperio® based products
- Encrypted radio communication

Applications

- Tools designed for the installer to set up and program Aperio® based products



Ordering Information

Product Description	Part Number
USB Dongle	APRD1/PAP1

Access Control



ML5000 Series Digital Cam Locks

ASSA ABLOY's new digital cam lock range is now the industry benchmark. The ML5000 Series has been developed for the most demanding government, commercial and institutional organisations.

There are two variations to choose from, Digital PIN Keypad or RFID, offering a range of features in both that meet the requirements of lockers in a range of applications such as:

- Schools
- Offices
- Leisure centres
- Sports clubs
- Health clubs

Both Digital PIN Keypad and RFID variants are available in models that can be easily mounted; vertically or horizontally to suit your locker design.

ASSA ABLOY's digital cam locks offer safety security and convenience for your lockers and their contents.

Features:

- Attractive slim line design
- Battery status LED
- Lock status LED
- Standard Alkaline batteries, 3 x AAA
- Micro USB battery back up
- Suits doors up to 23mm thick
- 3mm thick stainless steel cam

Digital PIN Keypad Features:

- 4-12 digit Master PIN
- 4-12 digit User PIN
- Private Code or Public Change Code Mode (similar to hotel safe)
- Sound Mode - On or Off
- Temporary wrong code lockout

RFID Features:

- Supported RF type: 13.56MHz ISO14443A MIFARE Classic, Ultralight, DESFireEV1
- Accepts up to 20 Administration Cards, 20 Master Cards and 20 User Cards per lock



RFID Version

Administration RFID Card

- Unlocks the Digital RFID cam lock (Deletes current User RFID Cards)
- Allows the cam lock to be changed between Private and Public Mode
- Registers User Cards, Master Cards and other Administration Cards

Master RFID Card

- Lock and unlocks on Private Mode
- Retains current User RFID Card information whilst in Private Mode
- Master RFID Cards can only be used in Private Mode

User RFID Card

- Locks and unlocks the cam lock

Private Mode

- The cam lock starts in a locked state
- Unlock the cam lock by flashing a registered User RFID Card to the front of the cam lock
- The cam lock will remain unlocked for 4 seconds before attempting to re-lock itself. The turn knob will be locked when returned to the locked position


Public Mode

- The cam lock starts in an unlocked state
- The user flashes a registered User RFID Card on the cam lock, the cam lock is now locked
- The same RFID card will open the lock and leave it in an unlocked state
- This card is then erased and ready for the next new user
- This function is used for short term, multi occupancy applications e.g. A locker in a fitness club



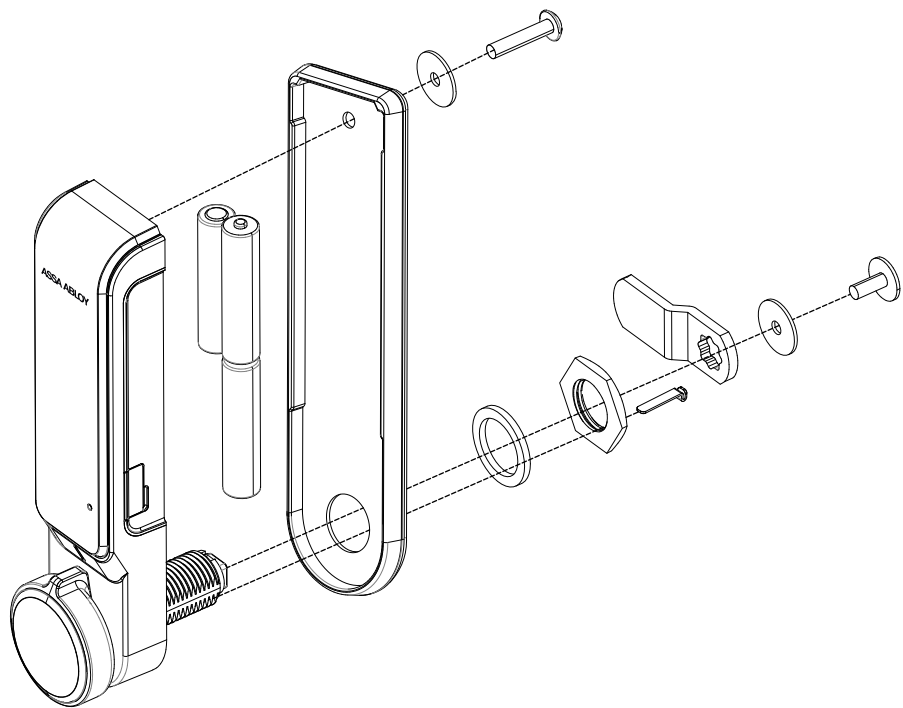
ML52RA - RFID Specifications

Product Details

Part Number	ML52B00001 - ML52RA RFID Horizontal or Vertical
	AA/ACC/USERCARD - RFID Cards (Pack = 10)
Size	158mm (High) x 40mm (Wide) x
	23mm (Deep, Body), 31mm (Deep, Knob)
Material	Die-cast (Body & Knob), ABS (Front)
Operating	Temperature: -20°C ~ + 70°C
	Humidity: 0~90%
Credential Levels	Administration: 1-20 RF Tags
	Master: 1 - 20 RF Tags
	User: 1 - 20 RF Tags
RFID Type	13.56 MHz ISO14443A MIFARE Classic (2 cards per lock included), Ultralight, DESFireEV1
Battery / Life	3 AAA Alkaline Batteries
	1 Year (Using 10 times a day)
Salt Spray	Tested to 96 hours
Compliance	
Door Thickness	1 - 23 mm
Cams	2 x Standard 3mm thick stainless steel cams supplied one straight cam, one offset cam. See page 9 for dimensions



Note: • All L&F Cams are suitable for this product range.
• ML52RA locks are not designed for outdoor use.



Digital PIN Keypad Version

Master Code

- Unlocks the cam lock (the cam lock will remain opened after use with the Master PIN Code)
- Enables changing the Master PIN Code
- Enables changing the User PIN Code
- Deletes the User PIN Code automatically

User Code

- Unlocks the cam lock (automatically locks within 4 seconds in Private Mode)
- Enables changing the User Code

Private Mode

- The cam lock starts in a locked state
- Open the cam lock by using a registered PIN code on the front keypad
- The cam lock will remain unlocked for 4 seconds before attempting to re-lock itself. The turn knob will be locked when returned to the locked position


Public Mode

- The cam lock starts in an unlocked state
- The user enters their own personal 4-12 digit PIN code, this will lock the cam lock
- Unlock the cam lock by using the same PIN code again. This leaves the cam lock in the unlocked state
- This PIN code is then erased and ready for the next new user
- This function is used for short term, multi occupancy applications e.g. Locker in a fitness club



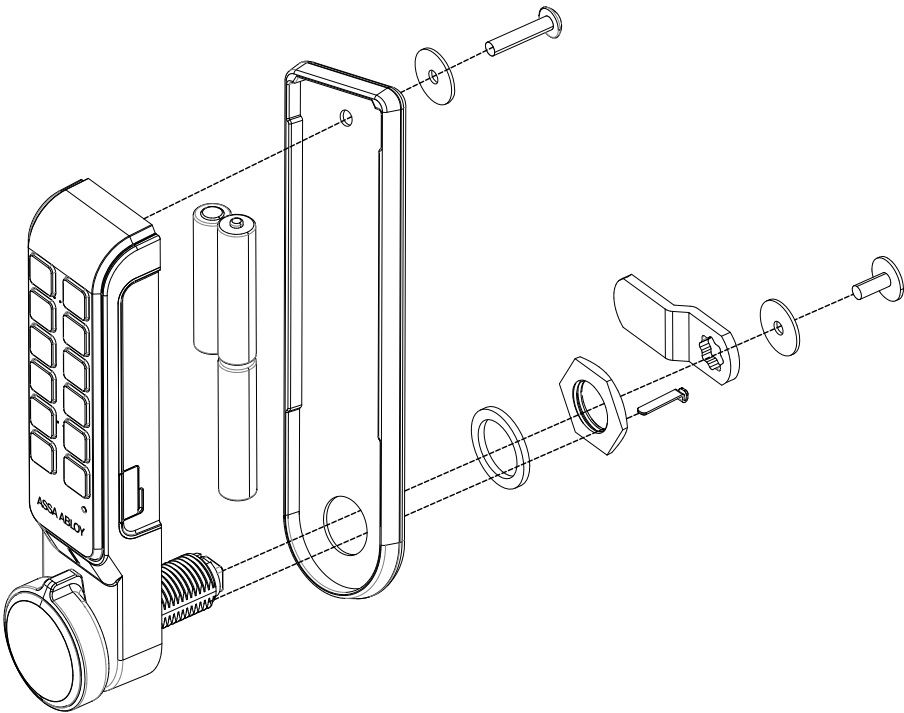
ML51PA - Digital PIN Keypad Vertical Specifications

Product Details


Part Number	ML51B00001 - ML51PA Digital PIN Keypad Vertical
Size	158mm (High) x 40mm (Wide) x 23mm (Deep, Body), 31mm (Deep, Knob)
Material	Die-cast (Body & Knob), ABS (Front)
Operating	Temperature: -20°C ~ + 70°C Humidity: 0-90%
Credential Levels	Master: 1 PIN code, 4-12 digit User: 1 PIN code, 4-12 digit
Battery / Life	3 AAA Alkaline Batteries 1.5 Years (Using 10 times a day)
Salt Spray	Tested to 96 hours
Compliance	
Door Thickness	1 - 23mm
Cams	2 x Standard 3mm thick stainless steel cams supplied one straight cam, one offset cam. See page 9 for dimensions



Note: • All L&F Cams are suitable for this product range.
• ML51PA locks are not designed for outdoor use.



Product Details

Part Number	ML51B00002 - ML51PA Digital PIN Keypad Horizontal (Right Hand)
	ML51B00003 - ML51PA Digital PIN Keypad Horizontal (Left Hand)
Size	158mm (High) x 40mm (Wide) x 23mm (Deep, Body), 31mm (Deep, Knob)
Material	Die-cast (Body & Knob), ABS (Front)
Operating	Temperature: -20°C ~ + 70°C Humidity: 0-90%
Credential Levels	Master: 1 PIN code, 4-12 digit
	User: 1 PIN code, 4-12 digit
Battery / Life	3 AAA Alkaline Batteries
	1.5 Years (Using 10 times a day)
Salt Spray	Tested to 96 hours
Compliance	
Door Thickness	1 - 23mm
Cams	2 x Standard 3mm thick stainless steel cams supplied one straight cam, one offset cam. See page 9 for dimensions

Note: • All L&F Cams are suitable for this product range.
• ML51PA locks are not designed for outdoor use.



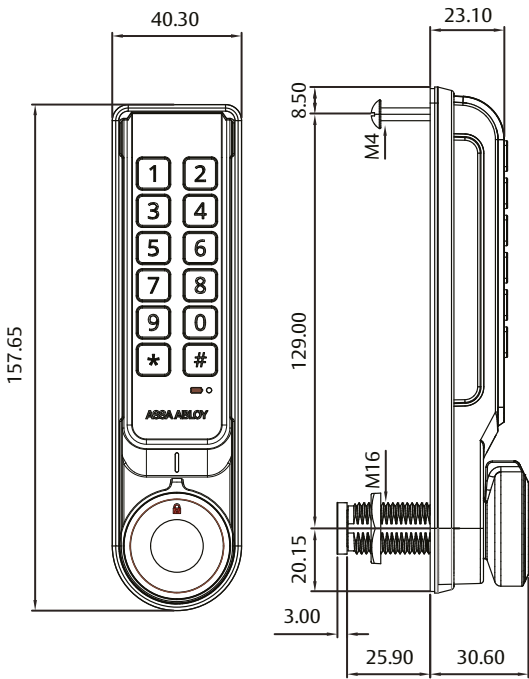
Digital PIN Horizontal (Right Hand)



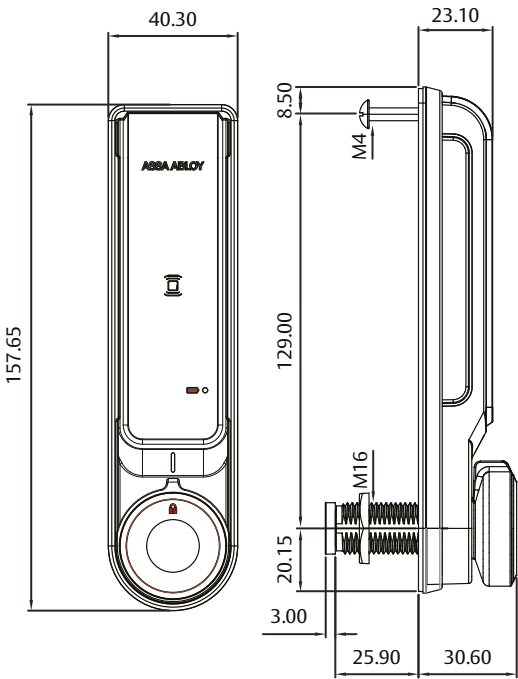
Digital PIN Horizontal (Left Hand)

Digital Cam Lock Dimensions

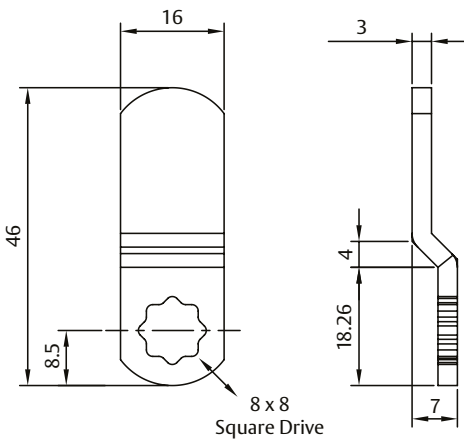
ML51B00001 - ML51PA Digital PIN



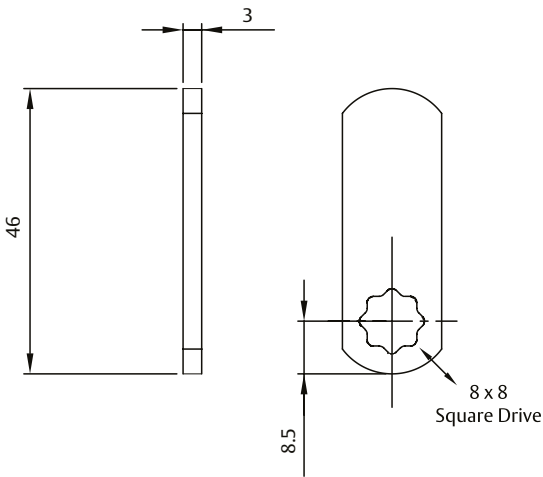
ML52B00001 - ML52RA RFID



Offset Cam



Straight Cam



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

ASSA ABLOY is represented in all major regions, in both mature and emerging markets, with leading positions in Australia, Europe and North America.

As the world's leading lock group, ASSA ABLOY offers a more complete product range of door opening solutions than any other company on the market.

ASSA ABLOY



The ASSA ABLOY 10 Year Mechanical Warranty

Our belief that we manufacture the finest premium products available in today's market place is backed by the ASSA ABLOY 10 Year Mechanical Warranty, ensuring that ASSA ABLOY continues to keep Australians safe by delivering security and peace of mind.

For warranty terms and conditions, please visit

www.assaabloy.com.au or call **1300WARRANTY**

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