



# APERIO® Technology

**ASSA ABLOY**  
Opening Solutions



Experience a safer  
and more open world



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## 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

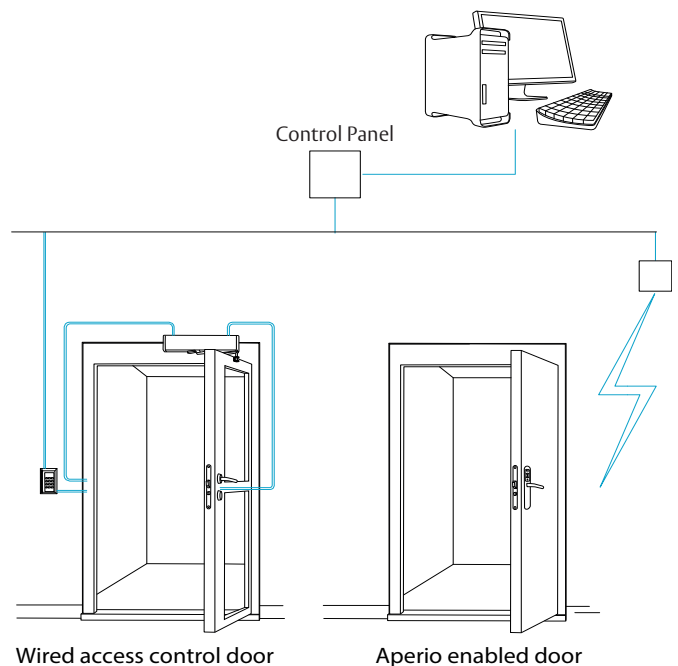
- Few components
- Very easy installation
- No changes to existing access control installations

### 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



# AU100 Series Escutcheon

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 mortice variants without modification to the mortice 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.

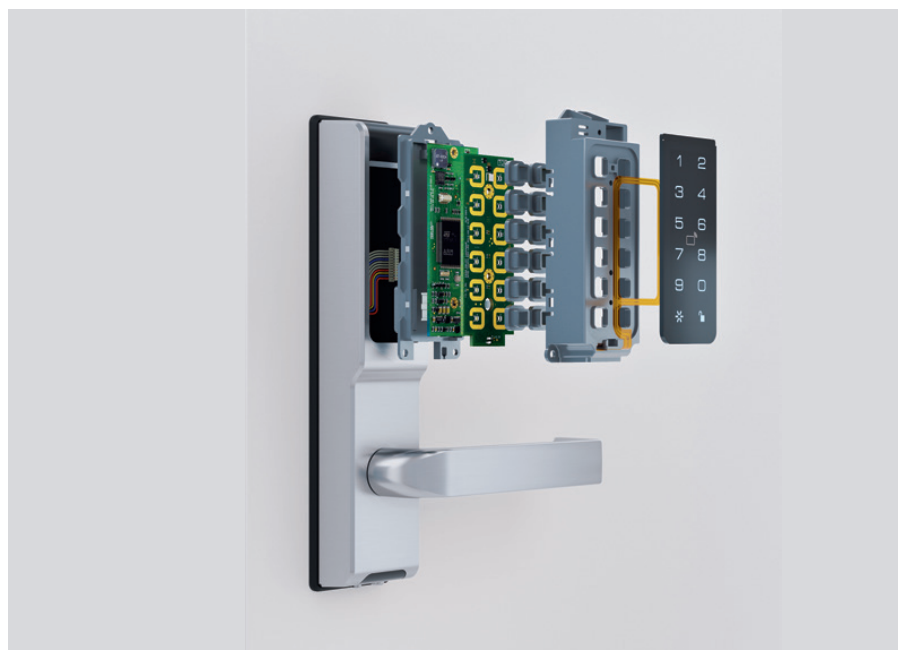
ASSA ABLOY's Aperio® technology is leading the evolution of Online Wireless Door Locks. The new AU100 is a fully commercial grade digital lockset that offers the durability and quality that is synonymous with ASSA ABLOY.

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.

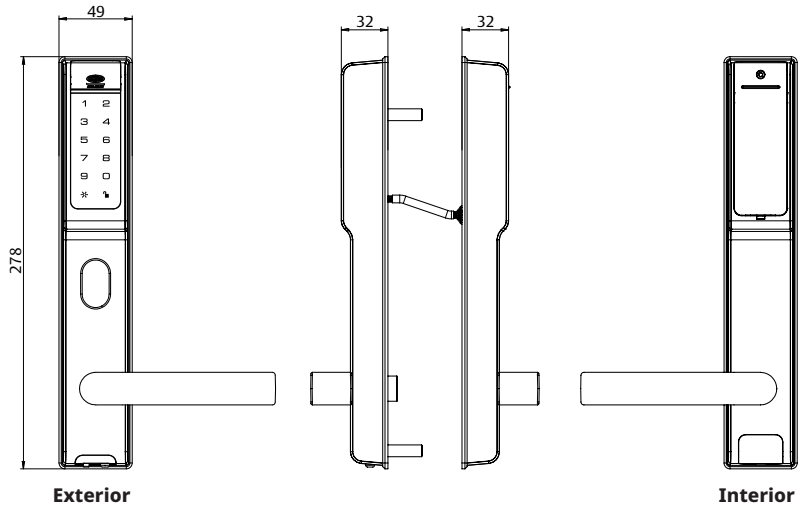
This lock sets the benchmark for premium wireless digital locking with its strong vandal proof keypad.



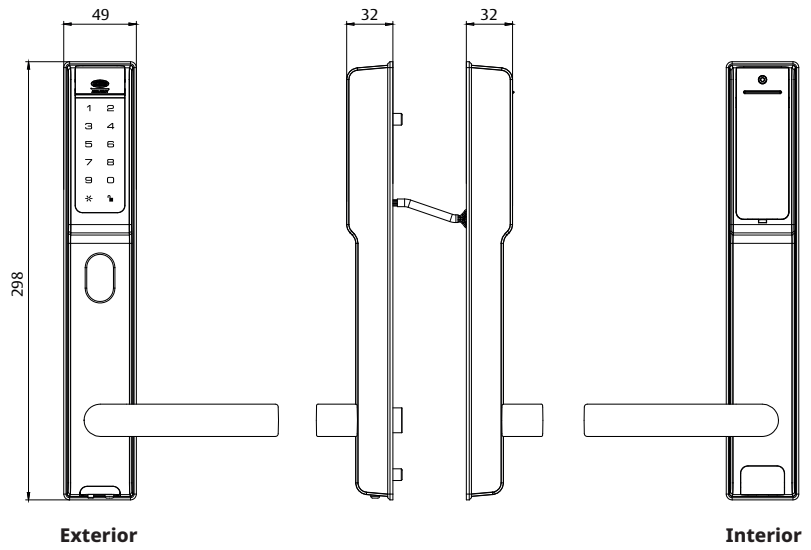
AU100 Series Escutcheon



**AU100 to suit narrow  
60mm backset mortice**



**AU100 to suit narrow  
30mm backset mortice**



## Electronic Features

- Wireless online access control
- Authorisation changes in real time
- Audit trails and time zones managed through existing EAC system
- Additional Key Override
- Rex (internal lever monitoring)
- Door position switch
- Now includes Privacy Mode
- Smart off line credential cache for the last 1000 authorised users for up to 30 days
- Store last 200 events and audit trails locally in the lock
- Battery powered
  - up to 40,000 operations
- LED status indication
- Battery low warning sent to EAC system
- Powerful new electronics with USB interface
- Remote door opening/locking functions
- RFID technologies, including iCLASS®, MIFARE® Classic/Plus, DESFire™, Seos® and LEGIC® and mobile technologies (NFC and BLE)
- Mobile Access functionality for Smart Phone credentials
- Aperio Offline devices support the OSS Standard Offline. For maximum compatibility with new and existing systems, Aperio Offline devices accept MIFARE® Classic, DESFire™ and Legic credentials — with audit trail support

## Mechanical Features

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

\*Cylinder not included



## 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

## 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 PDS

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





## 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	High Frequency Multiclass : iCLASS@/ISO 14443B; iCLASS@ Seos; MIFARE™ Classic; MIFARE™ Plus; MIFARE™ DESFire™ EV1
Mobile technologies	BLE
RFID Reading	UID/sector/block
Card Range	>2cm
IP-degree	IP54
Operating Temperature	-20°C - 60°C
Humidity	<85% non condensing
Approvals	RCM CE
Finish	Brushed Satin Chrome
Door Thickness	35-50mm

## Product Details

	AU100 to suit 60mm	AU100 to suit 30mm
Finish	SC	SC
Backset	60mm	30mm
Lever	77A	778A
Door Thickness	35-50mm	35-50mm
Body Material	Zinc Alloy	Zinc Alloy
Override Cylinder	Yes	Yes
Lock Type	Suited for 3570 and 3770	Suited for 5580 and 5780
Door Application	Timer door 60mm Backset	Metal or Aluminium narrow Style doors 30mm Backset

## Ordering Information

Product Description	Part Number
<b>AU100 Escutcheons only</b>	
APERIO AU100 V3 Keypad + Reader + Mobile Access 3772 VER 35-50mm Door, No Lock Satn Chrome	AU103BMU2SC1/2
APERIO AU100 V3 Keypad + Reader + Mobile Access 5782 VER 35-50mm Door, No Lock Satn Chrome	AU103BMU2SC1/3
<b>AU100 Accessories</b>	
Loom cable	CTXLOOM
3772 Spindle & Accessory pack screw cover 30-50mm	CTXACCPK2
5782 Spindle & Accessory pack screw cover 30-50mm	CTXACCPK3
Lockwood oval 570 cylinder with 'X7' cam	570C4/X7SC
<b>Mortice Lockbody</b>	
3772 Series Selector Standard Lock 60mm Backset	3772NOHDSS
5782 Series Selector Narrow Lock 30mm Backset	5782ENOHDSS

## 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



European Electric Compliance

# E100 Series Escutcheon

The E100 series escutcheon is designed to fit Lockwood mechanical 3570 or 3770 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

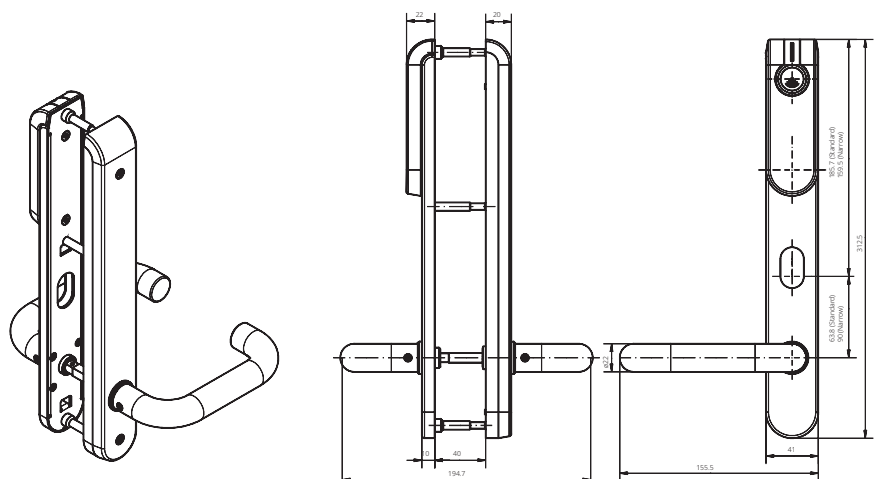
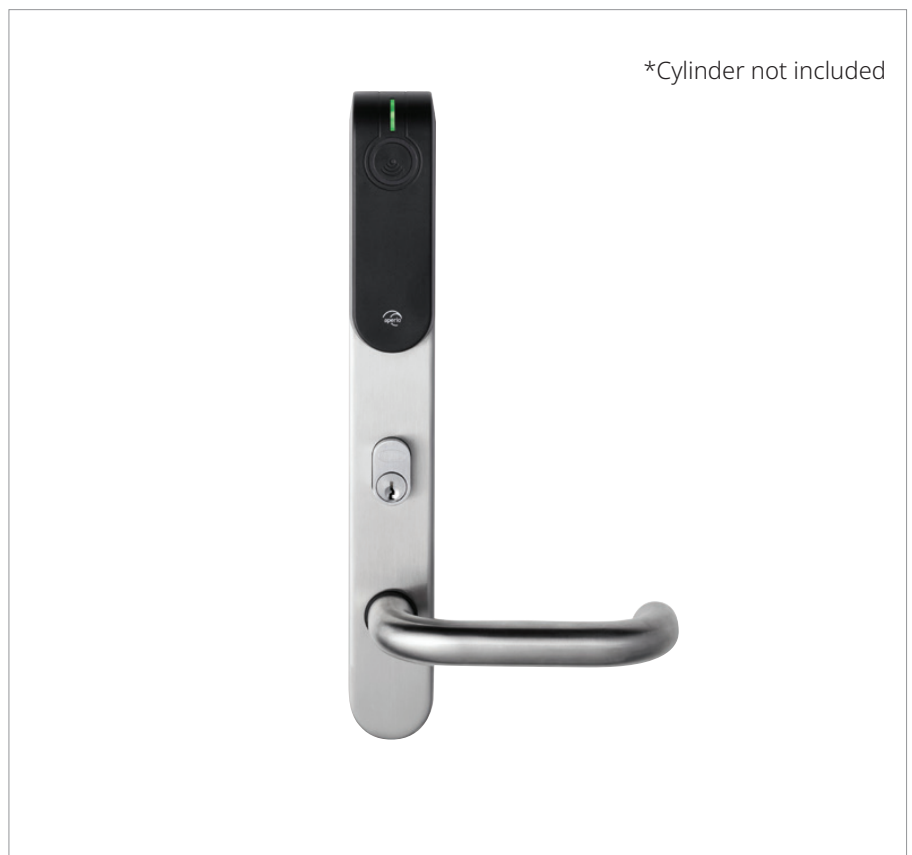
- Wireless online access control
- Authorisation changes in real time
- Audit trails and time zones managed through existing EAC system
- Compatible with Lockwood 3570 or 3770 series mechanical mortice locks
- Additional key override\*
- Emergency egress
- Lock can store up to 10 override credentials/prox 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
- Retrofit mechanical mortice locks
- Expand existing access control installations
- New access control installations
- Doors that can't 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

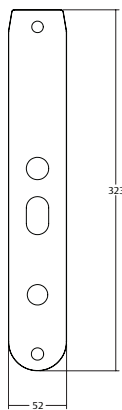


### E100 Technical Information

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
Mobile technologies	BLE
RFID reading	UID / sector / block
Card read range	< 4cm
Operating temperature	0°C – 60°C
Humidity	< 85% non condensating
IP-degree	IP54 (or IP56 Select Models)
Approvals	CE
Colour	Brushed stainless steel
Override cylinder	Lockwood Australian oval 570 series
Door thickness	60mm Backset Spindle to suit 40mm Narrow Backset
Spindles	7.6mm
Backset	23mm 30mm 38mm 60mm

\*\* Model dependent

**Notes:** To change the spindle; special tools may be required



E100 cover plate

### Ordering Information

Product description	Part number
E100 V3 Mortice Lock For 60mm Backset Doors, 35-45mm Door Thickness, Mobile Access, IP54	E103MUB1SS1
E100 V3 Mortice Lock For 60mm Backset Doors, 46-55mm Door Thickness, Mobile Access, IP54	E103MUB1SS2
E100 V3 Mortice Lock For 60mm Backset Doors, 56-65mm Door Thickness, Mobile Access, IP54	E103MUB1SS3
Aperio E100 V3 Narrow 35-45mm Door Multi Class, IP54	E103NARROW/1
Aperio E100 V3 Narrow 46-55mm Door Multi Class, IP54	E103NARROW/2
Aperio E100 V3 Narrow 56-65mm Door Multi Class, IP54	E103NARROW/3
E100 Suitable For Narrow Backset Locksets, 40mm Door Thickness , Hf	E103NARROW
E100 Suitable For Narrow Backset Locksets,35-45 Door, Hf, IP56	E103MUXSS1
E100 Suitable For Narrow Backset Locksets,46-55 Door, Hf, IP56	E103MUXSS2

### Mortice Lockbody

Product description	Part number
3772 Series Selector Standard Lock 60mm Backset	3772NOHDSS
3782 Series Selector Narrow Lock 23mm Backset	3782ENOHDSS
5782 Series Selector Narrow Lock 30mm Backset	5782ENOHDSS
6782 Series Selector Narrow Lock 38mm Backset	6782ENOHDSS

### Accessories

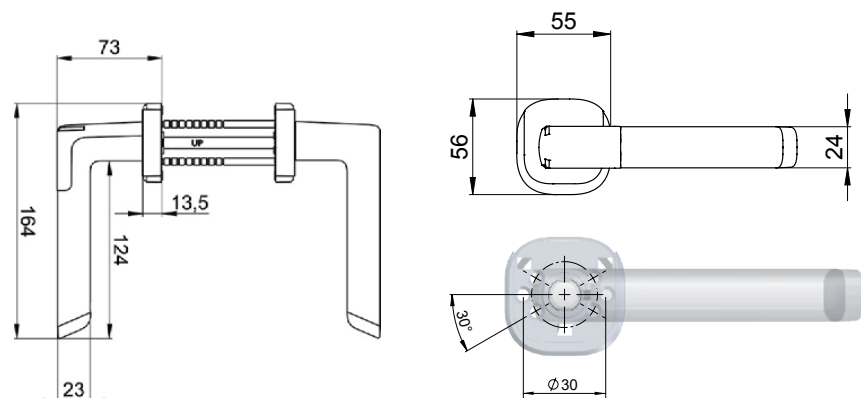
Product description	Part number
Aperio Spindle Kit 34-45mm Assembly	E-SP35/45
Aperio Spindle Kit 45-55mm Assembly	E-SP45/55
Aperio Spindle Kit 56-65mm Assembly	E-SP56/65
Aperio Spindle Kit 66-75mm Assembly	E-SP66/75
Lockwood oval 570 cylinder with 'x7' cam	570C4/X7SC

# 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 modified Lockwood mortice lock (8mm)
- Suitable for doors where Lockwood 3572 or 3772 mortice locks will suit.
- Keep your existing mechanical cylinder
- Straightforward integration with third-party access control systems
- Works with an online system
- Discrete handle with minimum footprint and contemporary design
- LED for instant status visualisation
- Takes one screw to replace handle batteries (CR123A)
- 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
- Includes Bluetooth technology
- Left or Right handed



## H100 Technical Information

Battery type	1 x Lithium CR123A
Battery lifetime	>40,000 cycles High Frequency Multiclass: 30 openings per day for 50 months
Radio standard	IEEE 802.15.4 (2.4 GHz)
Encryption (radio communication)	AES 128 bits
Distance between the RFID Reader and hub	Up to 25m depending on the building environment
RFID technologies (Based on reader type)	High Frequency Multiclass : iCLASS®/ISO 14443B; iCLASS® Seos; MIFARE™ Classic; MIFARE™ Plus; MIFARE™ DESFire™ EV1
Mobile technologies	BLE
RFID reading	UID / Sector / Block / Application / File
RFID reading range	< 4cm
Operating temperature	0°C to 55°C
Relative humidity	< 85% (condensation-free)
IP-degree	IP 42
Authentication	One level of authentication - CARD only
Status	LED (red/green/orange)
Communication interfaces	Communication via radio (USB dongle) or USB type B adapter (accessory)
Online operation modes	Aperio® Online
Approvals	CE, EN1906: 26-B010B RCM

## Ordering Information

Product description	Part number
Aperio H100 Handle, Left, 8mm Spindle, Satin Pearl, Mobile Access	H100B8L-SC-AU
Aperio H100 Handle, Right, 8mm Spindle Satin Pearl, Mobile Access	H100B8R-SC-AU
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

# C100 Knob Cylinder

Designed to fit the standard Lockwood oval 570 series cylinder, the C100 provides a unique & cost effective migration to an online electronic access control door.

The external housing contains 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 features at significantly reduced costs than that of a hard wired door.

## 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 (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
- X7 Cam fitted, A Cam supplied

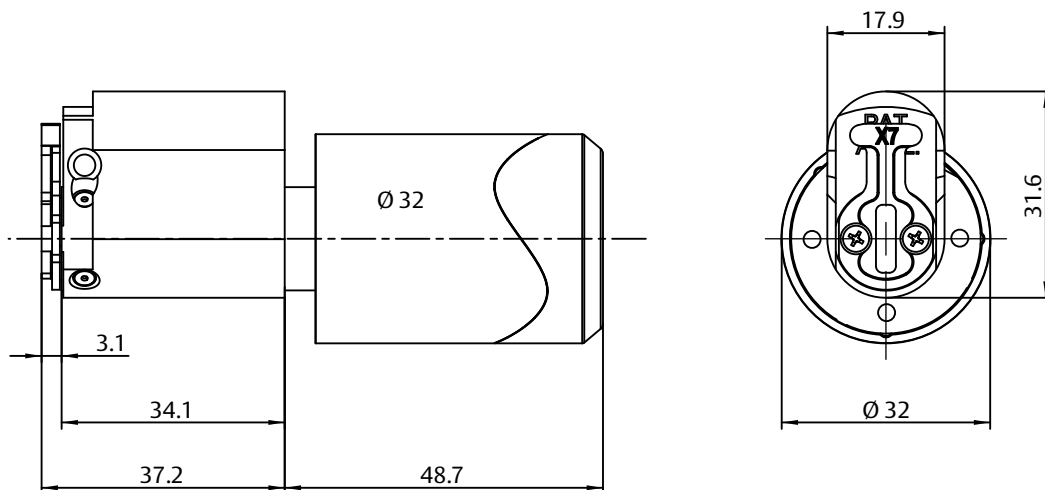


## C100 Technical Information

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 / Sector / Block / Application / File
Card reading range	< 4cm
Operating temperature	-20° to +55°C
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 100 CYLINDER V3	C103HFASS
APERIO C100 201 CYLINDER V3	C103HF201SS



# KL100 Wireless Locker/Cabinet Lock

The ASSA ABLOY Aperio KL100 is the easiest way to upgrade access control at openings beyond doors. It is fitted without wiring or drilling the cabinet door and works with almost any system, via Online integration.

## Easy integration

- Aperio KL100 works seamlessly with access control systems integrated to Aperio via AADP protocol or Wiegand hub. No database integration required.

## Quick installation

- It only takes a few minutes to swap a mechanical cylinder for an Aperio KL100.

## Flexibility

- Ideal for retrofit projects, KL100 allows you to tailor your solution with a wide range of cam types.

## Smart Credential Handling:

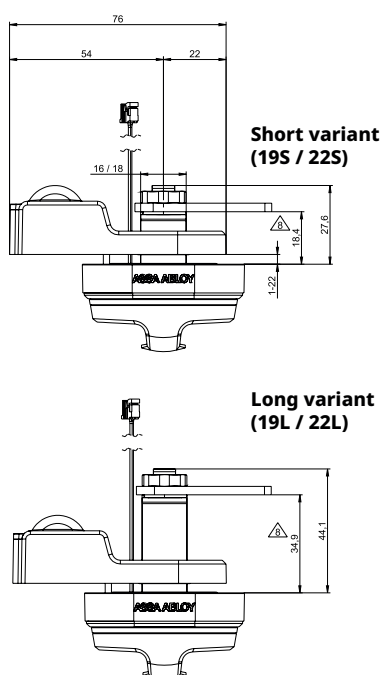
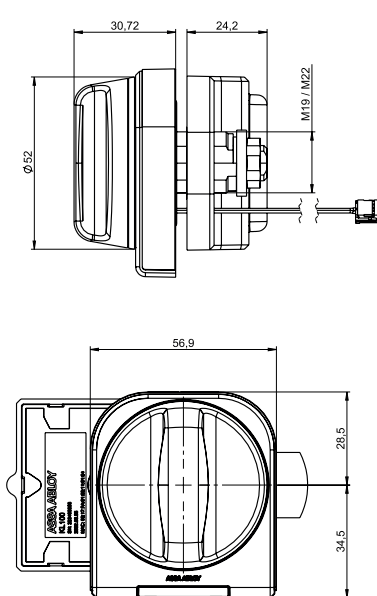
- Up to 1000 users can be granted access even if the EAC is temporarily down.

## Communicates with

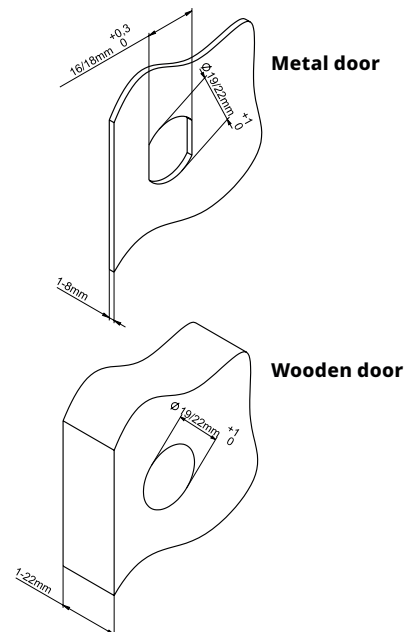
- RS485 Communication Hub
- Aperio IP Communication Hub
- Wiegand Interface (Standard and advanced versions) Communication Hub



## Dimensions in mm



## Drilling dimensions





### KL100 Technical Information

Authentication	CARD or Mobile
RFID Technologies	iCLASS, iCLASS SE, iCLASS Seos, MIFARE Classic, Mifare Classic SE, Mifare Ultralight, Mifare Plus, Mifare DESFire 0.6, Mifare DESFire EV1, Mifare DESFire EV2, Mifare DESFire EV3 (EV2 and EV3 only in Legacy mode), Mifare DESFire SE, PicoPass, ISO 14443A UID, ISO 14443B UID, ISO 15693 UID
RFID reading	UID / Sector / Block / Application / File / Depending on the RFID technology
RFID Reading range	Up to 4 cm
Mobile technologies	NFC and BLE
Approvals	CE, UKCA, RCM, R-NZ
Version	Two lengths: Short and long cylinders to fit metal and wooden doors. Two hole diameters: 19mm and 22mm
Dimensions	Short: 82,5 × 63 × 58,5 mm (Exterior Dimensions H × W × D) Long: 82,5 × 63 × 75 mm (Exterior Dimensions H × W × D)
Surface	Cover: black and grey
Battery	1 × Lithium CR123A
Battery life	25 openings per day for 106 months
Emergency power	Via micro-USB socket
Radio standard	IEEE 802.15.4 (2.4 GHz)
Encryption (radio communication)	AES 128 bits
Distance between the device and the hub	Up to 25m depending on the building environment
Class of protection	IP54
Operating temperature range	0°C to 55°C
Relative humidity	< 85% (condensation-free)
Status	LED (red/green/orange)
Configuration interface	Communication via radio (USB dongle) or Micro-USB cable (accessory)
Online operation modes	Aperio Online

### Ordering Information

Product Description	Part Number
Aperio KL100 Cabinet Lock, Long, 19mm Diameter	KL100-19L
Aperio KL100 Cabinet Lock, Short, 19mm Diameter	KL100-19S
Aperio KL100 Cabinet Lock, Long, 22mm Diameter	KL100-22L
Aperio KL100 Cabinet Lock, Short, 22mm Diameter	KL100-22S

### Accessories

Product Description	Part Number
Aperio KL100 Backing Plate 19mm (10 Pieces)	AKL100-10
Aperio KL100 Backing Plate 22mm (10 Pieces)	AKL100-11
Aperio KL100 Cam Straight, 05 A38 D0 (10 Pieces)	AKL100-20
Aperio KL100 Cam Straight, 17 A30 5 D0 (10 Pieces)	AKL100-21
Aperio KL100 Cam Offset, 86 A49 B5 D0 (10 Pieces)	AKL100-22
Aperio KL100 Cam Offset, 76 A41 B8 5do (10 Pieces)	AKL100-23
Aperio KL100 Cam Offset 109 A38 B3 D0 (10 Pieces)	AKL100-24
Aperio KL100 Cam Straight, 71 A50 D0 (10 Pieces)	AKL100-25
Aperio KL100 Plastic Rose Assembly	AKL100-30
Aperio KL100 Battery Holder Assembly	AKL100-31
Aperio KL100 Back Cover	AKL100-32
Aperio KL100 Usb Cover Assembly	AKL100-33
Aperio KL100 Turn Stop Washer	AKL100-40
Aperio KL100 Screw 2.5x8mm	AKL100-41
Aperio KL100 Insert	AKL100-42

# KS100 Series Server Cabinet Lock

Designed to install easily on most swing handle server cabinet doors, the HES KS100 comes standard with locked state monitoring and utilises an SFIC (Small Format Interchangeable Core) mechanical key override. An optional extended DPS monitoring sensor can be connected to ensure that the cabinet is closed, locked and secure. The HES KS100 supports HID multiCLASS SE® contactless credentials and uses local wireless communication between the lock and an Aperio hub to provide real-time monitoring and managed access to server cabinet doors, that protect against malicious attacks or tampering.

**Designed to integrate seamlessly with existing access control systems and protect critical assets from intrusion and expensive downtime.**

## Standard Features

- For use with cam-activated swing handle server cabinet applications with a 150 x 25mm lock prep
- 2.4 GHz Aperio wireless technology
- Supports HID multiCLASS SE® card technologies
- Integrates with existing access control systems and ID badges
- Audit trail limited by EAC system
- LEDs indicate valid/invalid entries; Red/Amber or Green/Amber
- Integrated locked state (handle), cam rotation and tamper monitoring
- Automatic relock
- Non-handed
- Black finish

## Certifications

- CC Part 15 & Industry Canada Compliant
- CE RED – Radio Equipment Directive – 2014/53/EU
- RoHS Compliant

## Electrical

- Estimated Battery Life: 50,000 Cycles
- 2 x "AA" lithium batteries (included)

- AA Lithium Batteries required. Use of other types of batteries, such as alkaline, will significantly decrease battery life
- Battery voltage monitoring microUSB port for emergency power

## Holding Force

- Static strength 160kg

## Environmental

- Operating Temperature: 32 to 122 F (0 to 50 C)
- Tested to meet IP54

## Card Technology HID® multiCLASS SE®

- High Frequency (13.56 MHz)
  - HID iCLASS®
  - HID iCLASS SE (SIO-enabled)
  - HID iCLASS® Seos™
  - HID MIFARE® SE
  - HID DESFire® EV1 SE
  - MIFARE CLASSIC
  - DESFire® EV1
- Low Frequency (125 kHz)
  - HID Prox®
  - AWID
  - EM4102
  - ioProx
- NFC-enabled Mobile Phones

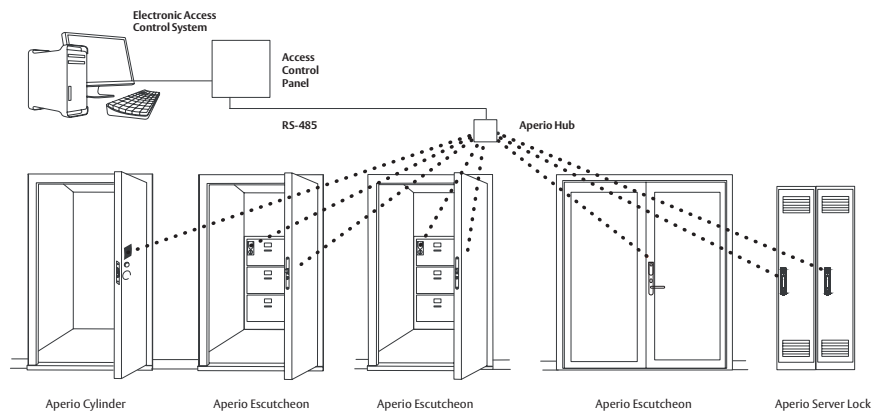
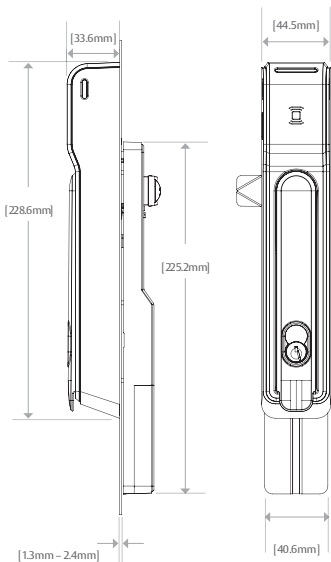


### KS100 Technical Information

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

### Ordering Information

Product description	Part number
KS100 V3 HF Server Rack Lock (with SFIC cylinder)	KS103KO



# R100 Surface Mount Reader

The Securitron R100 surface mounted wireless card reader offers a cost effective, and aesthetically pleasing way to extend access control to glass, metal or stone surfaces without the need for cutting or drilling.

A retrofit solution capable of being installed in minutes that complements virtually any ASSA ABLOY electrified locking device. The R100 provides flexible, robust retrofit options for entryways, unlike any the industry has seen before.

## Standard Features

- For use on glass or metal surfaces
- 2.4 GHz Aperio wireless technology
- Supports HID multiCLASS SE® card technologies
- Integrates with existing access control systems and ID badges
- Audit trail limited by EAC system
- LEDs indicate valid/invalid entries; Red/Amber or Green/Amber
- Black finish

## Certifications

- FCC Part 15 & Industry Canada Compliant
- CE RED – Radio Equipment Directive – 2014/53/EU
- RoHS Compliant

## Electrical

- Estimated Battery Life: 50,000 Cycles
- 2 x "AA" lithium batteries (included)  
-- AA Lithium Batteries required. Use of other types of batteries, such as alkaline, will significantly decrease battery life  
-- Battery voltage monitoring  
microUSB port for emergency power

## Environmental

- Operating Temperature: -25 to 60 C
- Tested to meet IP65



## Card Technology HID® multiCLASS SE®

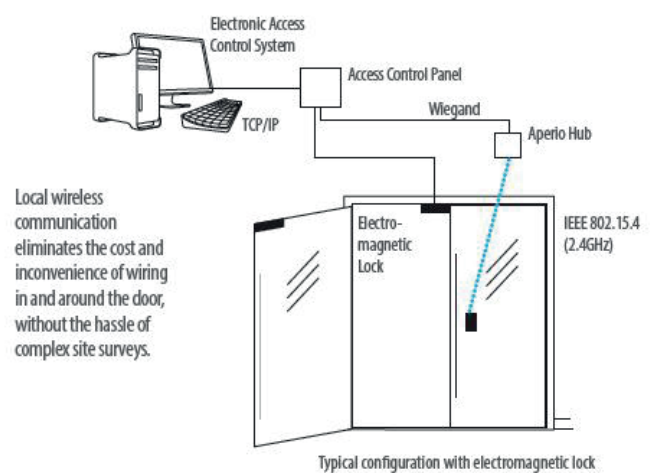
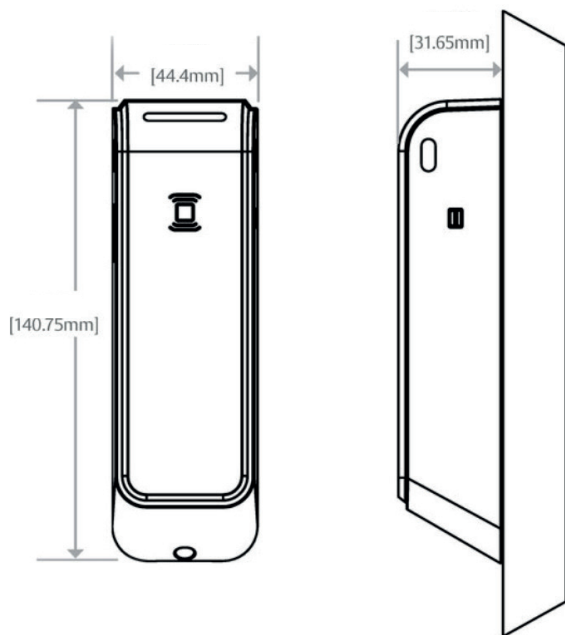
- High Frequency (13.56 MHz)
  - HID iCLASS®
  - HID iCLASS SE (SIO-enabled)
  - HID iCLASS® Seos™
  - HID MIFARE® SE
  - HID DESFire® EV1 SE
  - MIFARE CLASSIC
  - DESFire® EV1
- Low Frequency (125 kHz)
  - HID Prox®
  - AWID
  - EM4102
  - ioProx
- NFC-enabled Mobile Phones
  - SEOS iOS apple wallet

## R100 Technical Information

Battery type	Cr123A Lithium
Battery lifetime	35000 operations
Radio standard	IEEE 802.15.4 (2.4Ghz)
RFID technology	iClass, Mifare and 125 Khz Prox (prox separate model)
Card read range	< 3cm
IP-degree	IP65
Operating temperature	-25-60°
Approvals	CE Ctick & ANSI A156.11-2003 Grade 1
Finishes	Black

## Ordering Information

Product description	Part number
R100 V3, Glass mount Reader, Black Finish	R103MB



# P100 Padlock

The new Aperio P100 padlock is a revolutionary offering from ASSA ABLOY. With a unique, weather-protected design, the P100 is IP66 rated thereby making it the best fit for outdoor access control applications.

The P100 can work both as an online and as an offline lock, is compatible with all high frequency access control technologies and is cycle tested for 30,000 operations”.

## 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

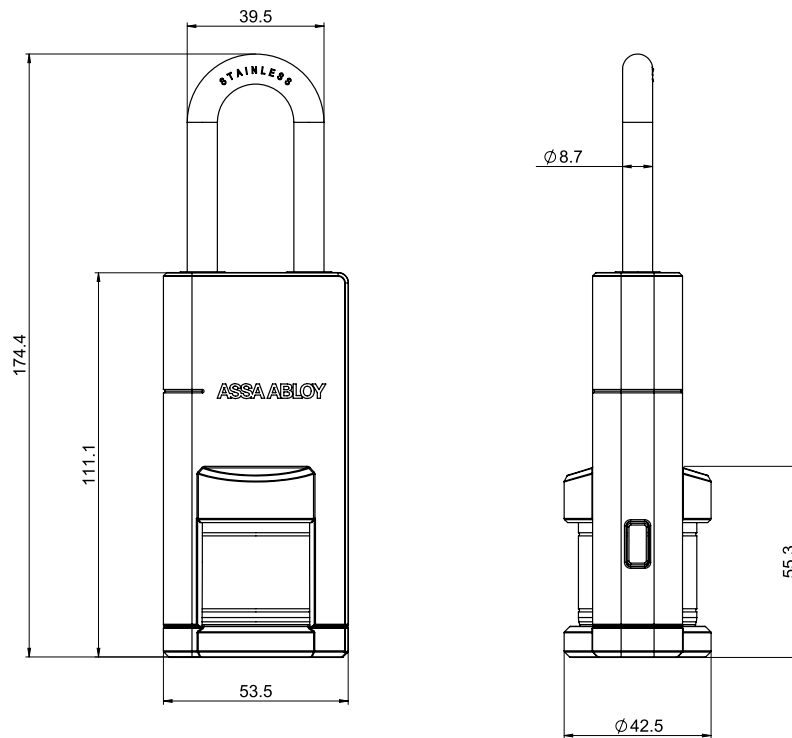
- 1 Padlock assembly with battery inserted installation instructions
- Battery change tool

## 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 / Sector / Block / Application / File
Card reading range	< 4cm
IP-degree	IP66
Operating temperature	-20° to +55°C

## Ordering Information

Product description	Part number
Aperio P100 Padlock V3	P100-100



# Communication Hub and EAC Interface

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.

## 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 eight 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 eight 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 eight Aperio devices to a single hub
- Different interfaces allowing connection to a wide range of access control systems
- 128 Bit AES Encrypted Radio Communications
- Option to integrate antenna (does not come with it in the box)
- Led status for visual indication

## Communication Hub Technical

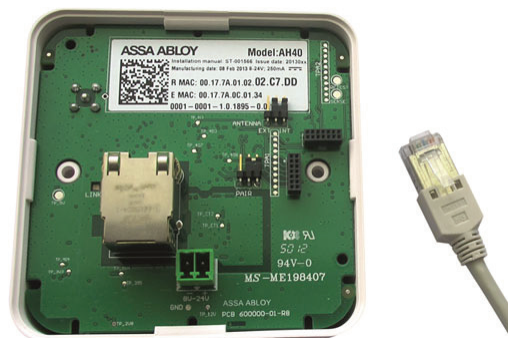
Hub version	Interface	Max. No. of Locks
AH30	RS-485	8
AH40	IP ( Ethernet)	8

## Ordering Information

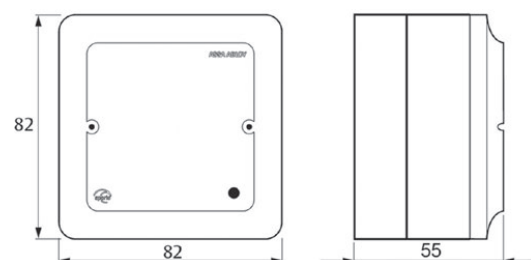
Product description	Part number
AH30 Aperio 1:8 RS485 Hub	AH30-3-0
AH40 Aperio 1:8 IP(Ethernet) Hub	AH40-4-0
AH30 Aperio 1:8 RS485 Hub Kit With External Antenna	AH30-KIT
AH40 Aperio 1:8 IP(Ethernet) Hub Kit With External Antenna	AH40-KIT



AH30 1:8 RS485 Hub



AH40 IP (ethernet) Hub





# Software and 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 database that can be used to manage any number of sites.

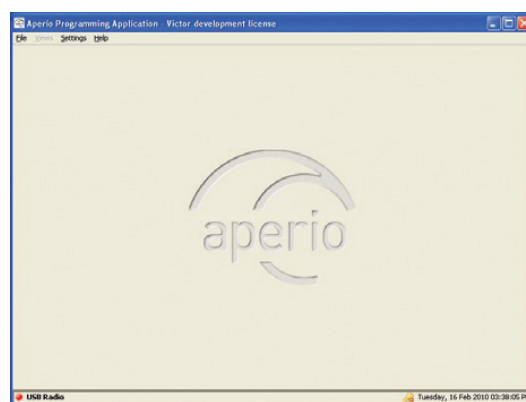
## Key Features

### • 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

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



Aperio™ Encryption Key Request Form



## Ordering Information

Product description	Part number
USB Dongle	APRD1/PAP1

The ASSA ABLOY Group is the global leader in access solutions. Every day we help people feel safe, secure and experience a more open world.

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