Electromechanical Door Solutions

ASSA ABLOY
Opening Solutions

The global leader
in access solutions

Contents

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. 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.

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

Control Panel

Wired access control door   Aperio enabled door
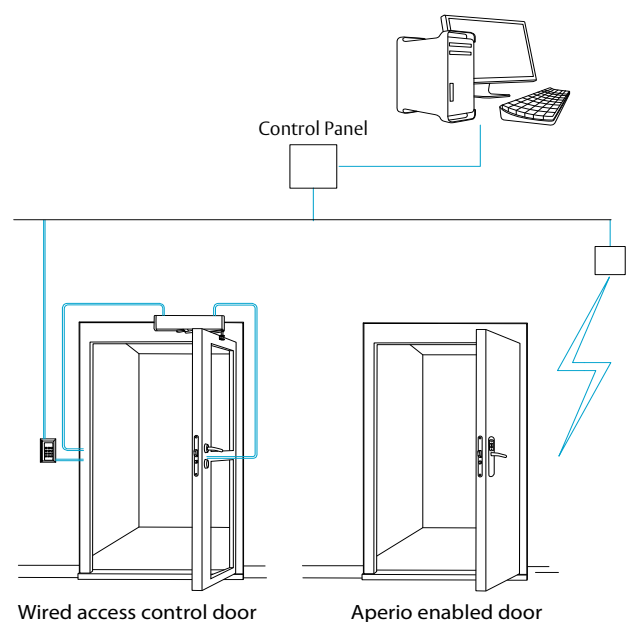
H100 Handle

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

H100 Handle
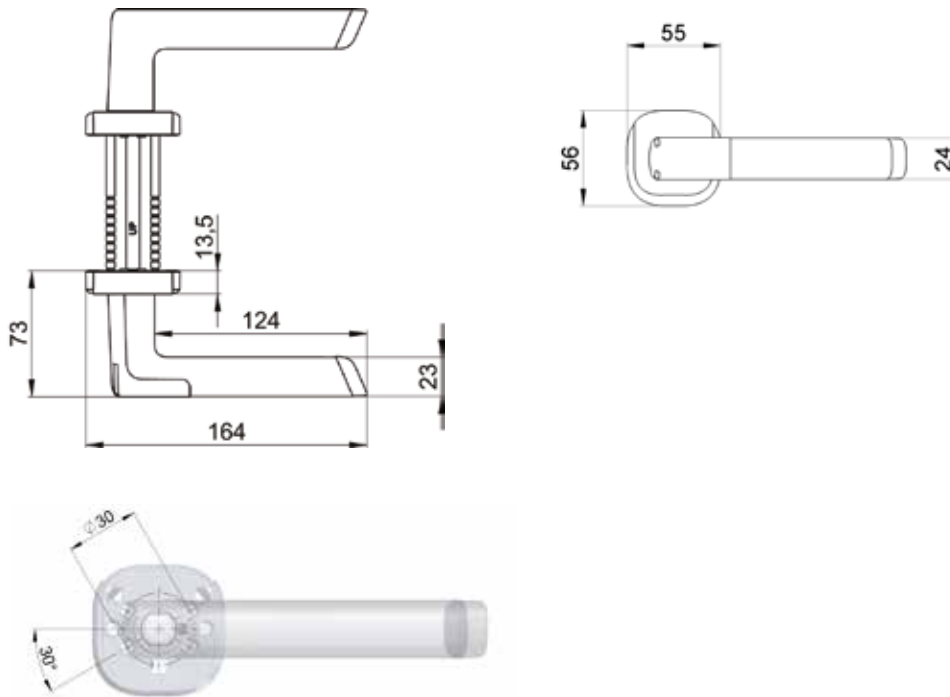
H100 Technical Information

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
RFID reading	UID / Sector / Block / Application / File
RFID reading range	< 4cm
Class of protection	IP42
Operating temperature	0°C to 55°C
Relative humidity	< 85% (condensation-free)
IP-degree	IP 65
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)
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, Satin Pearl, Bluetooth	**H100B8R-SC-AU**
Aperio H100 Handle, Right, 8mm Spindle, Satin Pearl, Blutooth with 3772 Mortice Lock	**H100B8R-SC-AU-B**
Aperio H100 Handle, Left, 8mm Spindle, Satin Pearl, Bluetooth	**H100B8L-SC-AU**
Aperio H100 Handle, Left, 8mm Spindle, Satin Pearl, Bluetooth with 3772 Mortice Lock	**H100B8L-SC-AU-B**

Accessories

Product Description	Part Number
Aperio USB Firmware Adaptor for use in Battery Compartment	**AH100-010**
H100 Distance Ring for inner doors thinner than 35mm	**AH100-020**
U-Handle or RTD Adapter (set of 2 - Battery Holder End Cap & Dummy End Cap) - Satin Chrome	**AH100-001**
U-Handle or RTD Adapter (set of 2 - Battery Holder End Cap & Dummy End Cap) - Satin Pearl	**AH100-002**
H100 DDA Grip for Disability Access	**AH100-005**
Kit comprising AH100-001 'U-Handle' Satin Chrome & AH100-005 DDA Grip	**AH100-006**
Kit comprising AH100-001 'U-Handle' Satin Pearl & AH100-005 DDA Grip	**AH100-106**
H100 530 Latch 8mm plus Adaption Plate - Small, 60mm Backset	**AH100-085**
H100 530 Latch 8mm plus Adaption Plate - Large, 60mm Backset	**AH100-086**
H100 530 Latch 8mm plus Adaption Plate - Small, 70mm Backset	**AH100-095**
H100 530 Latch 8mm plus Adaption Plate - Large, 70mm Backset	**AH100-096**
H100 Cylinder Escutcheon - Satin Chrome	**AH100-070**
H100 Cylinder Escutcheon - Satin Pearl	**AH100-071**
Aperio Hub 1:16 RS485 Hub	**AH30-3-0**
Aperio 1:64 IP (Ethernet) Hub	**AH40-4-0**

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 507 Oval, 201 Rim and 8466 Kawneer Cylinders

- 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 to1000) 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
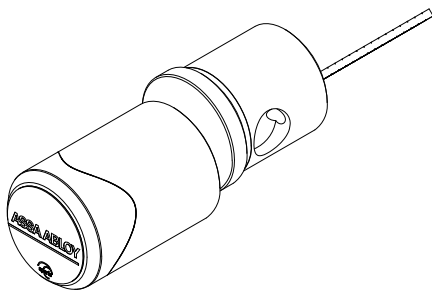
Scope of delivery

- 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 Knob Cylinder

aperio®

C100 201 Cylinder

C100 Kawneer Cylinder

C100 Technical Information

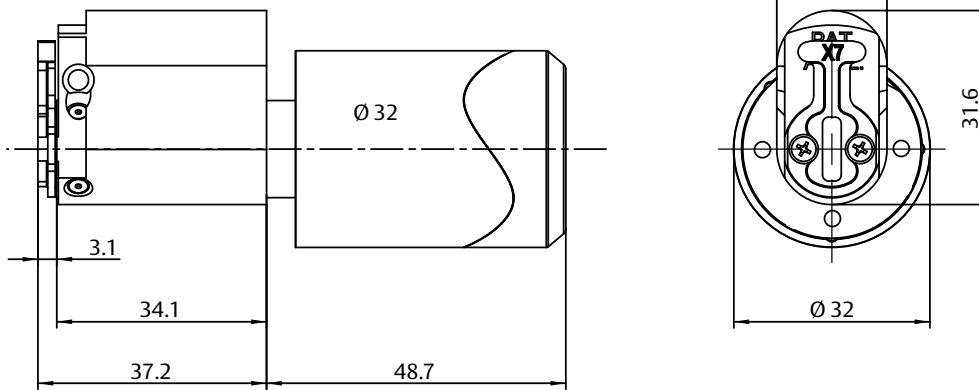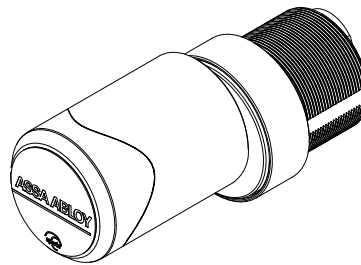|	
Battery type	1 x Lithium CR2
Battery lifetime	<30,000 cycles (max 2 years)
Radio standard	IEEE 802.15.4 (2.4GHz)
Encryption	AES 128 Bit
Wireless range: Cylinder to Hub	5-25m depending on location of Hub & environment
RFID technology**	MIFARE Classic®, MIFARE Ultralight®, MIFARE® DESFire®, MIFARE Plus®, MIFARE® SE, MIFARE® DESFire® SE; iCLASS SE; iCLASS Seos®, iCLASS Seos Elite
RFID reading	UID / 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 Cylinder SC V3	**C103HFASS**
Aperio C100 201 Cylinder V3	**C103HF201SS**
Aperio C100 Kawneer Cylinder SCV3	**C103HFKAWSS**

Accessories

Product Description	Part Number
Aperio Hub 1:16 RS485 Hub	**AH30-3-0**
AH40 Aperio 1:64 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 to1000) 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

P100 Padlock

P100 Technical Information

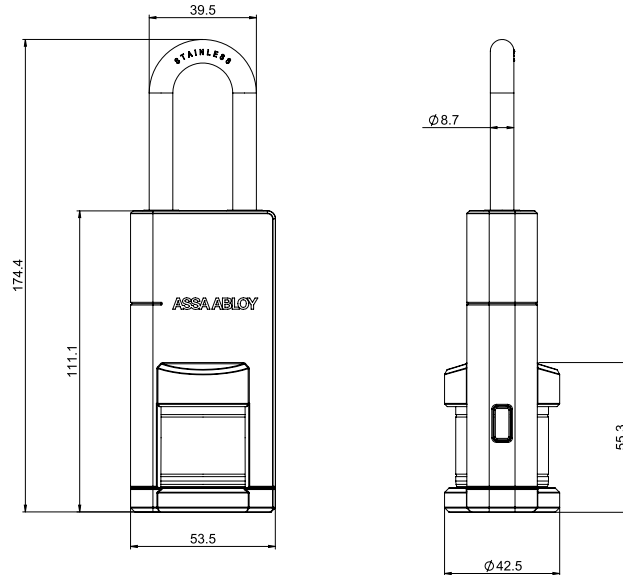|	
Battery type	1 x Lithium CR2
Battery lifetime	<30,000 cycles (max 2 years)
Radio standard	IEEE 802.15.4 (2.4GHz)
Encryption	AES 128 Bit
Wireless range: Cylinder to Hub	5-25m depending on location of Hub & environment
RFID technology**	MIFARE Classic®, MIFARE Ultralight®, MIFARE® DESFire®, MIFARE Plus®, MIFARE® SE, MIFARE® DESFire® SE; iCLASS SE; iCLASS Seos®, iCLASS Seos Elite
RFID reading	UID / Sector / Block / Application / File
Card reading range	<4cm
Operating temperature	-20° to +55°C
IP-degree	IP 66
Case Colour	Black
Approvals	CE and RCM

Ordering Information

Product Description	Part Number
Aperio P100 Padlock V3	**P100-100**
Aperio P100 Padlock V3 with Chain	**P100-200**

Accessories

Product Description	Part Number
Aperio Hub 1:16 RS485 Hub	**AH30-3-0**
AH40 Aperio 1:64 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 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.

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 locks sets the benchmark for premium wireless digital locking with its strong vandal proof keypad.
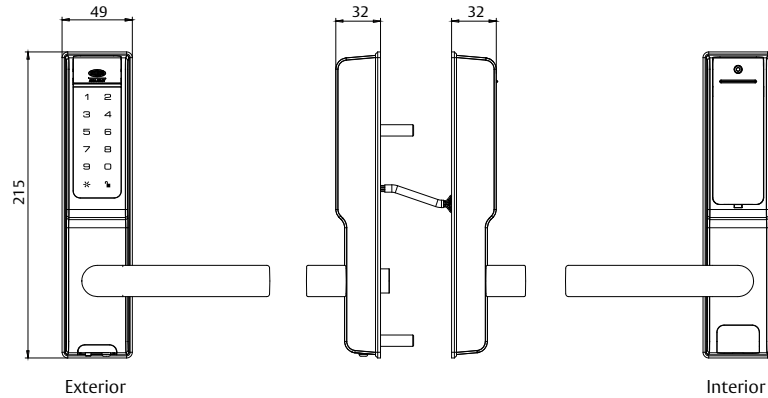
AU100 Series Escutcheon

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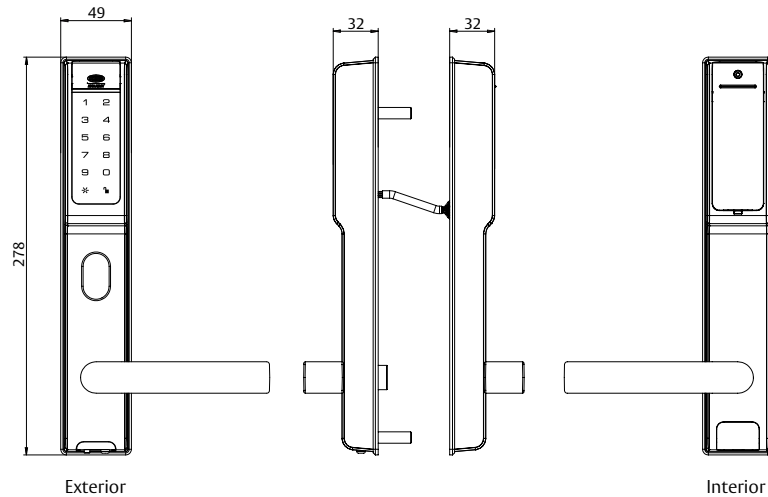
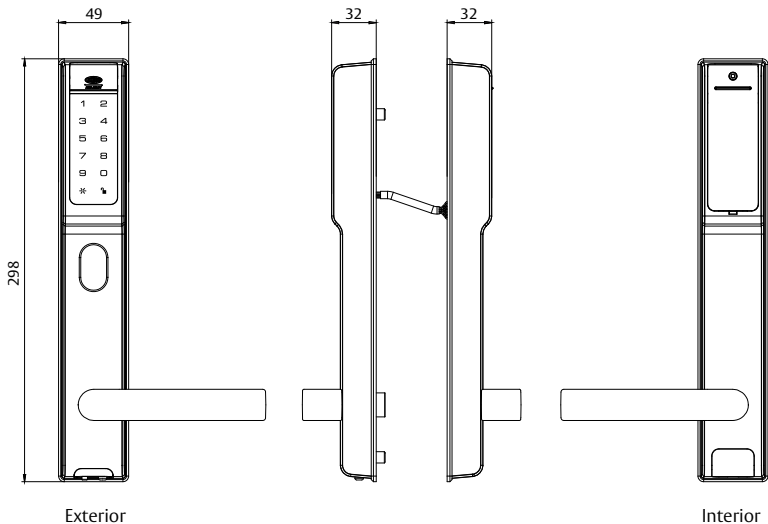You may also use the 530 version on a Mortice lockset and not use the override cylinder feature.

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

- Heartbeat communication: 5-10 seconds

- Remote door opening/locking functions

- Supports multiple high frequency RFID technologies and SEOS

- 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

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 DPS

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

AU100 Series Escutcheon

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 Technologies (Based on reader type)	High Frequency Multiclass : iCLASS®/ISO 14443B; iCLASS® Seos; MIFARE™ Classic; MIFARE™ Plus; MIFARE™ DESFire™ EV1
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	**AU103MU2SC1/1/B**
Aperio AU100 v3 keypad + reader 3772 ver 35-50mm door with lock	**AU103MU2SC1/2/B**
Aperio AU100 v3 keypad + reader 3772 ver 35-50mm door with lock	**AU103MU2SC1/3/B**

AU100 Accessories

Product Description	Part Number
Aperio hub 1:16 RS485	**AH30-3-0**
AH40 Aperio 1:64 IP (Ethernet) Hub	**AH40-4-0**

E100 Series Escutcheon

The E100 series escutcheon is designed to fit Lockwood mechanical 3772 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 3772 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 Series Escutcheon

aperio®
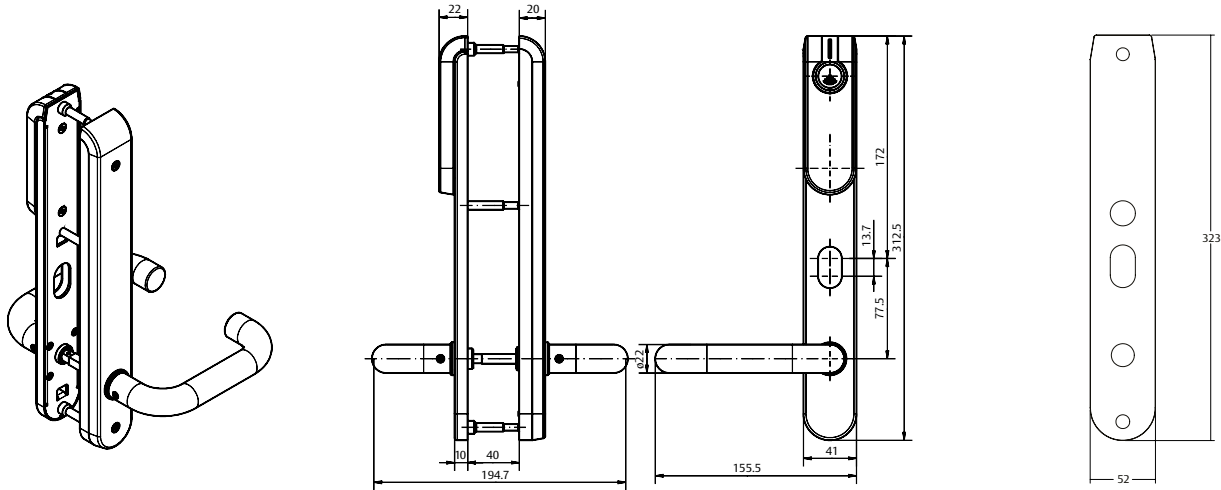
E100 cover plate

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**	High Frequency Multiclass : iCLASS®/ ISO 14443B; iCLASS® Seos; MIFARE™ Classic; MIFARE™ Plus; MIFARE™ DESFire™ EV1
RFID Reading	UID / sector / block
Card Read Range	< 4cm
Operating Temperature	0ºC – 60ºC
Humidity	< 85% non condensating
IP-Degree	IP 52*
Approvals	CE and RCM
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
Aperio E100 V3 Escutcheon 35-45mm Door, MultiClass, Bluetooth	**E103MUB1SS1**
Aperio E100 V3 Escutcheon 35-45mm Door, MultiClass, Bluetooth + 3772 Mortice Lock	**E103MUB1SS1/3772**
Aperio E100 V3 Escutcheon 46-55mm Door, MultiClass, Bluetooth	**E103MUB1SS2**
Aperio E100 V3 Escutcheon 46-55mm Door, MultiClass, Bluetooth + 3772 Mortice Lock	**E103MUB1SS2/3772**
Aperio E100 V3 Escutcheon 56-65mm Door, MultiClass, Bluetooth	**E103MUB1SS3**
Aperio E100 V3 Escutcheon 56-65mm Door, MultiClass, Bluetooth + 3772 Mortice Lock	**E103MUB1SS3/3772**

Accessories

Product Description	Part Number
Aperio E100 Face Plate, No Key Override	**E103NOKO**
Aperio E100 Cover Plate, One Pair (each plate is 1.2mm thick, allow in the Spindle Length)	**E100-PL2SSS**
Aperio Gen 5 Wireless Communications Hub, 1:16, RS485	**AH30-3-0**
Aperio Gen 5 Wireless Communications Hub, 1:64, TCP/IP	**AH40-4-0**

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

HES® KS100 Series Server Cabinet Lock

The HES KS100 Series Server Cabinet Lock is designed to integrate seamlessly with existing access control systems and protect critical assets from intrusion and expensive downtime.

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.

Key Features

- For use with cam-activated swing handle server cabinet applications with a 150 x 25 mm 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

- SecuriCare three-year, no fault, no questions asked warranty

KS100 Technical Information

Operating Temperature	32˚ to 122˚F [0˚ to 50˚C]
Finish	Black
Product dimensions	44.5W x 33.6 D x 228.6 H Suitable for 25mm x 150mm server lock openings
Approvals	FCC Part 15 & Industry Canada Compliant CE RED – Radio Equipment Directive – 2014/53/EU RoHS Compliant, Tested to meet IP54 RCM Compliance

HES® KS100 Series Server Cabinet Lock

Optional Features

- Supports 6 or 7-pin SFIC mechanical key override (sold separately)
  - **(blank)**, NO SFIC or blank plastic core (standard)
  - BC, SFIC blank, black plastic core
  - K1, Medeco X4 SFIC Core, Keyed Differently (DGV Commercial Keyway), with 2 Keys (1 Control & 1 User Key)
  - MK-XXXXXX, Medeco X4 SFIC Core, Master Keyed (DGV Commercial Keyway), with 2 Keys (1 Control & 1 User Key)
- External Door Status Monitoring (KS-DPS)

Specifications

Electrical

- Estimated Battery Life: 50,000 Cycles
- (2) "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 350 lbs

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
- NFC & Bluetooth - enabled Mobile Phones
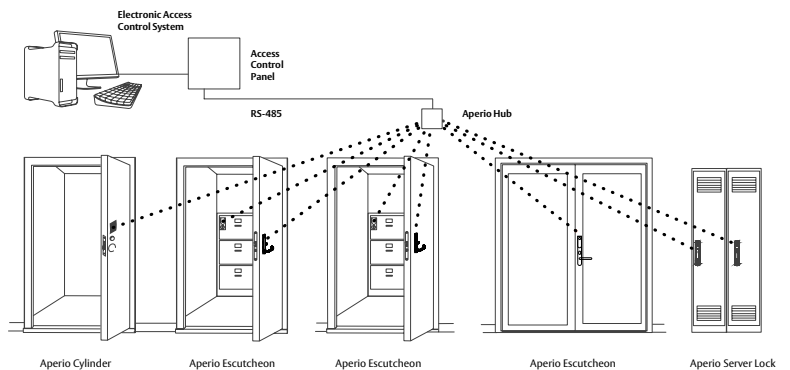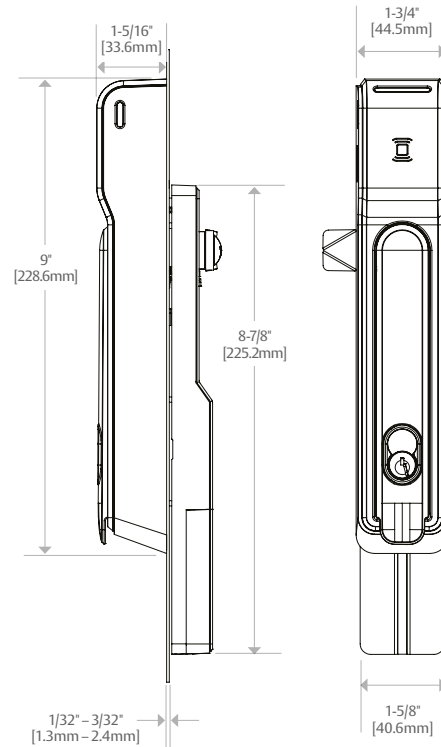
Ordering Information

Product Description	Part Number
Server cabinet lock (with Key override)	**KS103KO**

Accessories

Product Description	Part Number
Medeco X4 SFIC cylinder & 2 keys (1 control, 1 user)	**SFIC**
KS SFIC blank, black plastic core	**SFIC-BC**
Surface mount DPS (external)	**KS-DPS**
CAM: 38MM-1	**KS-CAM38**
CAM: 45MM-5	**KS-CAM45**
Aperio Hub External Antenna (Omni-directional)	**EXT-10-ANT**

HES® K100 Series Cabinet Lock

The flexible integrated solution for extending access control to secure lockers, drawers and doors.

The HES K100 Cabinet Lock comes standard with locked state and tamper monitoring, optional mechanical key override and over 150 lbs of holding force.

The HES K100 supports HID® multiCLASS SE® contactless credentials. It uses local wireless communication between the lock and an Aperio hub to bring access control to cabinet doors and drawers where audit trail and real-time monitoring are required.

NOTE: The HES K100 Cabinet Lock is available as either a pre-paired lock and hub kit (no certification required) or as a field configurable component (requires Aperio® Certified Integrator certification). Pre-paired kits support limited features. Field configured devices are required in order to support all options. Visit **IntelligentOpenings.com** to learn more.

Key Features

- For use with swinging and sliding cabinet doors and drawers with a door thickness of up to 2-1/4"

- 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 and tamper monitoring

- Automatic relock when door is closed and secure

- Non-handed

- Three optional shaft lengths to accommodate up to 2-1/4" door thickness

- SecuriCare three-year, no-fault, no questions asked warranty

K100 Technical Information

Battery Type	Two AA Lithium
Battery Lifetime	50,000 operations
Operating Temperature	32° to 122°F [0° to 50°C]
Approvals	FCC Part 15 & Industry Canada Compliant CE RED – Radio Equipment Directive – 2014/53/EU RoHS Compliant and Tested to meet IP65 RCM Compliance
Finishes	Black

HES® K100 Series Cabinet Lock

Optional Features

- Mechanical key override (sold separately)
- Pinch (P) or Lever (L) Knobs
- Knob shaft lengths:
  - (_)1/16" to 1/2" (standard)
  - (2) ≥ 1/2" to 1-1/2"
  - (3) ≥ 1-1/2" to 2-1/4"

Specifications

Electrical

- Estimated Battery Life: 50,000 Cycles
- (2) "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 150 lbs

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 & Bluetooth - enabled Mobile Phones
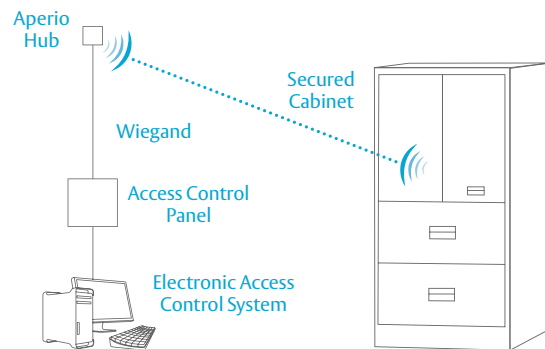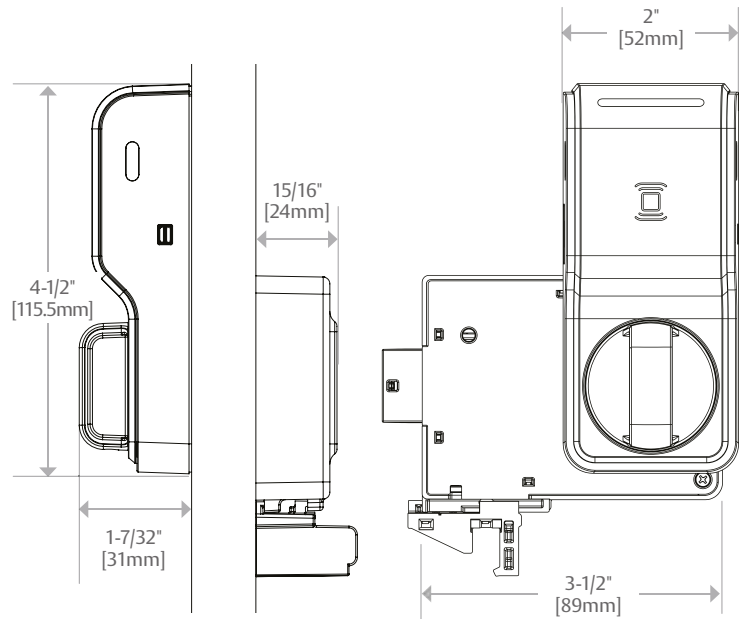
Ordering Information

Product Description	Part Number
K100 V3, BLE, Black Finish, Lever Type, 1.6mm to 12.7mm	K103B-LEVER
K100 V3, BLE, Black Finish, Lever Type, 12.7mm to 38.1mm	K103B-LEVER-2
K100 V3, BLE, Black Finish, Snib Type, 1.6mm to 12.7mm	K103B-SNIB
K100 V3, BLE, Black Finish, Snib Type, 12.7mm to 38.1mm	K103B-SNIB-2
K100 V3, Black Finish, Lever Type	K103-LEVER
K100 V3, Black Finish, Lever Type 12.7mm to 38.1mm	K103-LEVER-2
K100 V3, Black Finish, Snib Type	K103-SNIB
K100 V3, Black Finish, Snib Type, 12.7mm - 38.1	K103-SNIB-2

Accessories

Product Description	Part Number
Open back strike plate for drawers	OBS-622

Securitron® R100 Series Card Reader

The Securitron R100 surface mounted wireless card reader offers a cost effective, 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 compliments virtually any ASSA ABLOY electrified locking device. Provides flexible, robust retrofit options for entryways unlike any the industry has seen before.

NOTE: The Securitron R100 card reader is available as either a pre-paired reader and hub kit (no certification required) or as a field configurable component (requires Aperio® Certified Integrator certification). Pre-paired kits support limited features, field configured devices are required in order to support all options. Visit **IntelligentOpenings.com** to learn more.

Key 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

- SecuriCare three-year, no-fault, no questions asked warranty

K100 Technical Information

Operating Temperature	32° to 122° F (0° to 50° C)
Approvals	FCC Part 15 & Industry Canada Compliant, CE RED – Radio Equipment Directive – 2014/53/EU, RoHS Compliant and Tested to meet IP65
Finishes	Black

# Securitron® R100 Series Card Reader

Specifications

Electrical

- Estimated Battery Life: 50,000 Cycles
- (2) "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

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
- NFC & Bluetooth - enabled Mobile Phones

Typical configuration with electromagnetic lock
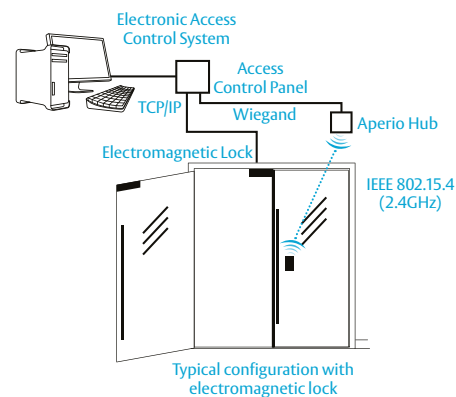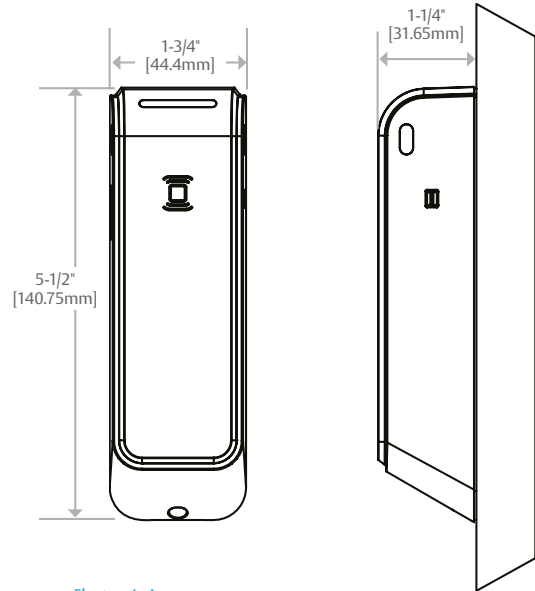
Local wireless communication eliminates the cost and inconvenience of wiring in and around the door, without the hassle of complex site surveys.

Ordering Information

Product Description	Part Number
Aperio Reader with Paired Hub (Black)	**R100H-IPS-B**
R100 Glass Mount Reader Blk no Hub	**R100-IPS-B**

Accessories

Product Description	Part Number
R100 adhesive Aluminum dress cover plate	**R100-DCA**

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.

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.

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.
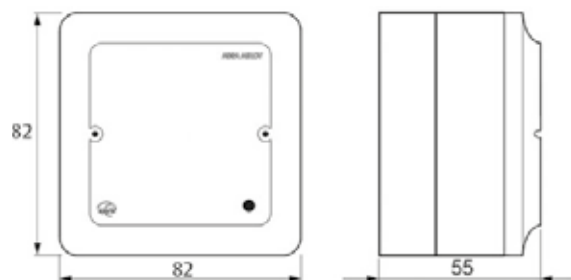
AH30

The AH30 utilises a RS-485 connection between the Hub and the access control system. The hub is designed to communicate with up to 16 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 64 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

AH30 1:16 RS485 Hub

AH40 1:64 IP (ethernet) Hub

Communication Hub Technical

Hub Version	Interface	Max. No. of Locks
AH20	Advanced Weigand	1
AH30	RS-485	16
AH40	IP (Ethernet)	64

Ordering Information

Product Description	Part Number
AH20 Aperio 1:1 Advance Wiegand Hub	**AH20-2-0**
AH30 Aperio 1:16 RS485 Hub	**AH30-3-0**
AH40 Aperio 1:64 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

Integral Wireless Access Control

Integral RFID Proximity Identification Technology

Product Features

- Stand-alone Electronic Wireless Access Control lockset with RFID Proximity reader

- Powered by 4xAA batteries that provide up to 60,000 operations

- 992 event audit trail

- Stainless Steel Escutcheon

- Uses Australian Mortice lock (3772NOHDSS) . 530 tubular latch option also available

- Panic release function – the latch is automatically retracted by inside handle for easy egress in emergency situations

- 3 point steel latch construction with an antifriction mechanism

- High quality card reader that reads with optimal accuracy

- Door Opening Time - Open the door after pressing the handle, automatically locks within 5 seconds

- Electronic Privacy - Denies access when privacy is required

- Passage mode - Gives the ability to leave the door in the unlocked state

- Available with or without key override

- Fire Rated

Under Voltage Indication:

Early warning given for low batteries - units will continue to operate for approximately 50 times until such time the batteries can be changed.

Specifications

Anti-Static Interference	>15000V
Working Humidity	20%-98%
Working Temperature	-20°C - +70°
RFID Card Type	ISO 14443A MIFARE®
Frequency	13.56MHz
Induction Distance	Approx. 30mm
Power	4 x AA Alkaline Batteries

Access Cards

User Cards: Opens locks (when granted applicable access rights) within the "Access Control System" within a specific time period. The access rights for each user are programmed by the software and encoder User cards will not open doors that have the internal 'Privacy mode' set.

Floor Card: Unlocks all rooms of a specific floor in a valid period, except if the room is locked from within (Privacy).

Zone Card: Unlocks all rooms of a specific zone (building) in a valid period, except if the room is locked from within (Privacy).

Global Access Card: Unlocks all doors in a valid period, except if the room is locked from within (Privacy).

Security Card: Unlocks all doors in a valid period, including doors that have been locked from within (Privacy).

One time User Card: Unlocks selected door during a valid time period but expires after use.

Access Management Setting Cards

Locks Identification Card: Set the Address ID of door lock

Lock Real-Time Card: Set the door lock "real time"

Recorder Card: Reads the Audit Trail Information from the locking devices

Cancel Staff Card: Cancels lost staff cards (Floor, Zone, Global, Security)

Software Management Cards

SWA (Software Activation Card): Activates the card issuing system (Management Software) & Initialises the Locks.

ICCARD: Additional SWA Card if SWA card is lost or more than one is required on the same site.

*

* Cards supplied in Plain White with custom printing available.

Integral
Access Management Components

Encoder

- Programs all Cards Types except for the Special IC card, which is used to activate the software management system

- Plug-in-and-Play USB Card Encoder

- Easily learn and use: it easily assigns new users and cards, it modifies them or invalidates lost or stolen cards

- Reads the audit trail of locks when cards are presented
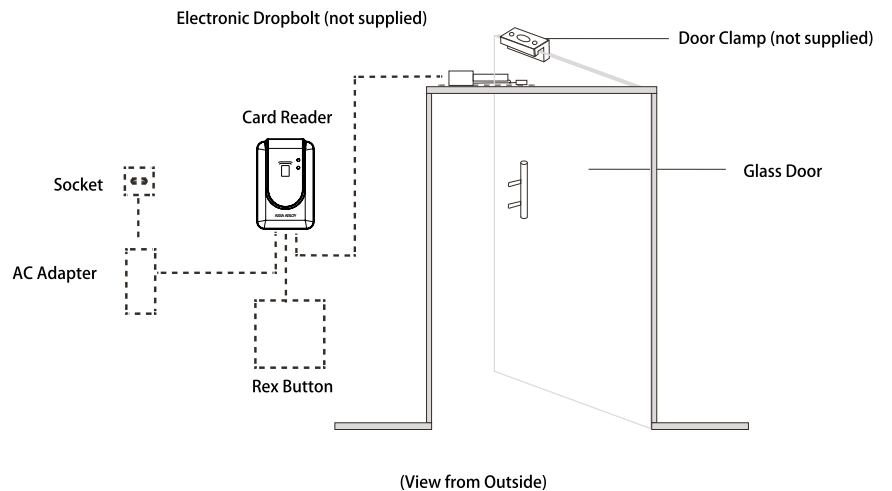
- Windows® based

Specifications

Colour	Black
Material	Flame Retardant ABS
Power Supply	By USB
Operating Current	100mA
RF Frequency	13.56MHz
Size	31mm x 98mm 125mm

Integral
Access Management Components

Door Access Controller Wall Reader

- For doors where Integral escutcheons are not fitted

- RFID Door Access Controller Wall Reader can be used on an entry door as part of the complete wireless access control system. It can also be used on any other common area doors in the building

- The RFID Door Access Controller Wall Reader can be used with a number of different electronic lock types. Compatible with electronic magnets, drop bolts, motorised locks and electric strikes

Electronic Dropbolt (not supplied)

Door Clamp (not supplied)

Card Reader

Socket

Glass Door

AC Adapter

Rex Button

(View from Outside)

Specifications

Colour	Black
Power Supply	12VDC
Current Consumption	100mA
Card Type	Mifare Card (MACS) (Only operates with ASSA ABLOY Integral System Cards)
Read Card Distance	20 ~ 50mm
Audit Trail	2000 Events
Input	Rex button signal
Output	Dry node 1 group (NO/NC/COM)
Working Environment	Working Temperature: -10 ~ 70°C Storage Temparature: -25 ~ 125°C Working Humidity: 5% ~ 95%

Energy Saving Device

- For minimizing energy consumption in a room when unoccupied.

- The intelligent energy saver controls and manages the electrical installation of the room. It allows the electricity in the room to be switched on after inserting a valid card and during the time that the card is in the energy saver.

- It only works with Integral user cards and it incorporates RFID proximity ISO 14443A MIFARE® technology.

Integral
Access Management Components

Portable Programmer

NFC Data Collection/Configuration:

- For configuring and collecting data from each lock
- Synchronise lock data with the Integral software
- Connects to PC using USB cable
- Extract entry data (audit trail) from the locks (total of 2000 events in memory)
- Can extract multiple locks without uploading
- Upload all records to the Integral software
- Easily set the time of the locks
- Checks card recorded information
- Check lock configuration

Specifications

Colour	Black
Communications	USB/NFC
Material	Flame retardant ABS
Working Voltage	3.0V (2pcs AA batteries)
Quiescent Current	<10uA
Working Current	<100mA
Size	177.6mm x 85mm x 30mm
Working Environment	Working temperature: 0~70°C Storage temperature: -25~125°C Working humidity: 5%~95%

Integral
Access Control Management System

Software

A simple to use software system that makes it easy to manage and maintain your access control

- Software available in commercial or accommodation versions

- Basic door management software system that is simple to add and delete doors/users as necessary

- Flexible user access rights

- Creates Software Management Cards for activating card issuing system and initializing the door locks

- Creates Access Management Setting Cards for setting the Wireless Access Control Lock ID and "real time" clock.

- Audits: Show and report on;

  - Lists of individual doors

  - Identification of users

  - Doors by floor, building, block, zone etc.

  - A report of every opening/closing registered by all locks/readers

  - All events relating to the operation of the software (Logins etc.)

- Different levels for operators (Administrators)

- Intuitive Windows® based software connected to a USB card encoder to program/issue cards
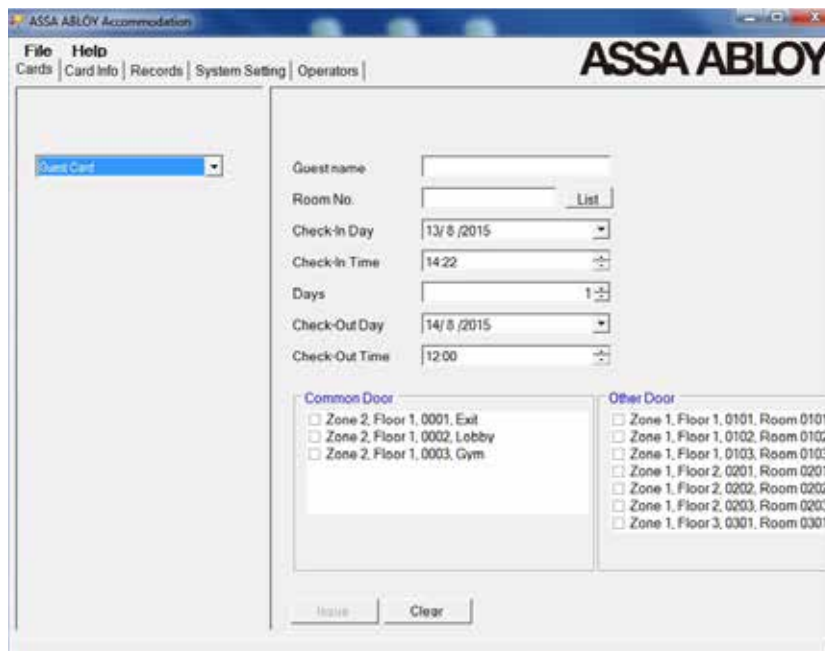
Computer Requirements

	ASSA ABLOY Server / Client	ASSA ABLOY Desktop Client
Supported Operating Systems:	Windows 11	Windows 11
	Windows 10	Windows 10
	Windows 7, Windows Server 2003,	Windows 7, Windows Server 2003,
	Windows Server 2008, Windows Server 2008 R2	Windows Server 2008, Windows Server 2008 R2
System Memory	Minimum 4 GB	Minimum 2 GB
Hard Disk	4 GB of Disk Space	1 GB of Disk Space

Processors:

ASSA ABLOY Desktop Client & ASSA ABLOY Server / Client:

X86: Pentium III-compatible processor or faster (Processor Speed - 1.0 GHz or faster)

X64: Minimum: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support (Processor Speed - 1.0 GHz or faster)

Integral Product
Reference Codes Functions

ASSA ABLOY's Integral Wireless Access
Control Solution Product.

Encoder

ITGL910-ENCODER	Card encoder

Locksets/Escutcheon

ITGL-AUT1I1SS	ASSA ABLOY Integral Escutcheon - AU Version (35mm - 55mm Door)
ITGL-AUT1I1KOSS	ASSA ABLOY Integral Escutcheon with Key Override (35mm - 55mm Door)
ITGL-AUT1I1SS-B	ASSA ABLOY Integral Escutcheon - AU Version (35mm - 55mm Door) with 3772 Mortice Lock
ITGL-AUT1I1KOSS-B	ASSA ABLOY Integral Escutcheon with Key Override (35mm - 55mm Door) with 3772 Mortice Lock
ITGL-AUT1I1SS-BL1	ASSA ABLOY Integral Escutcheon (35mm - 55mm DOOR) with 530 Latch 60mm
ITGL-AUT1I1SS-BL2	ASSA ABLOY Integral Escutcheon (35mm - 55mm DOOR) with 530 Latch 70mm
ITGL-AUT1I1SS-BL3	ASSA ABLOY Integral Escutcheon (35mm - 55mm DOOR) with 530 Latch 127mm

Cards

ITGL920-ICCard	Additional System Activation Card: Activates the card issuing system
ITGL910-SWA	System Activation Card: Activates the card issuing system
ITGL920-USERCARD	User Cards: Writable cards All writable cards can program the following cards - Setting card - Guard card - Single card - Time card - Zone card - Global card - User card - Floor card - Record card
ITGL920-USERFOB	User Fob - Writable
ITGL-920-WBB-30/75	User Wrist Band 30-75mm - Writable

Product Accessories

ITGL930-ENERGY	Intelligent energy saving device
ITGL930-WALL	Wall mounted RFID door access controller
ITGL930-LIFT	Lift controller 2 - 27 floors (Includes) & 8 Floors lift card reader
ITGL930-HDD	Hand Held NFC Programming Device
ITGL-SCAR-001	Integral Escutcheon Scar Plate (Pair)

System Capacity

SYSTEM COMPONENT	LIMITATION
Integral Server	1
Integral Client*	15
Door Locks / Readers	9999
Elevator Floors	27
Users / Cards	Unlimited

Note: Each Client must have an encoder.

ASSA ABLOY
Opening Solutions

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℃ ~ + 70℃
	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.

ML51PA - Digital PIN Keypad Functions
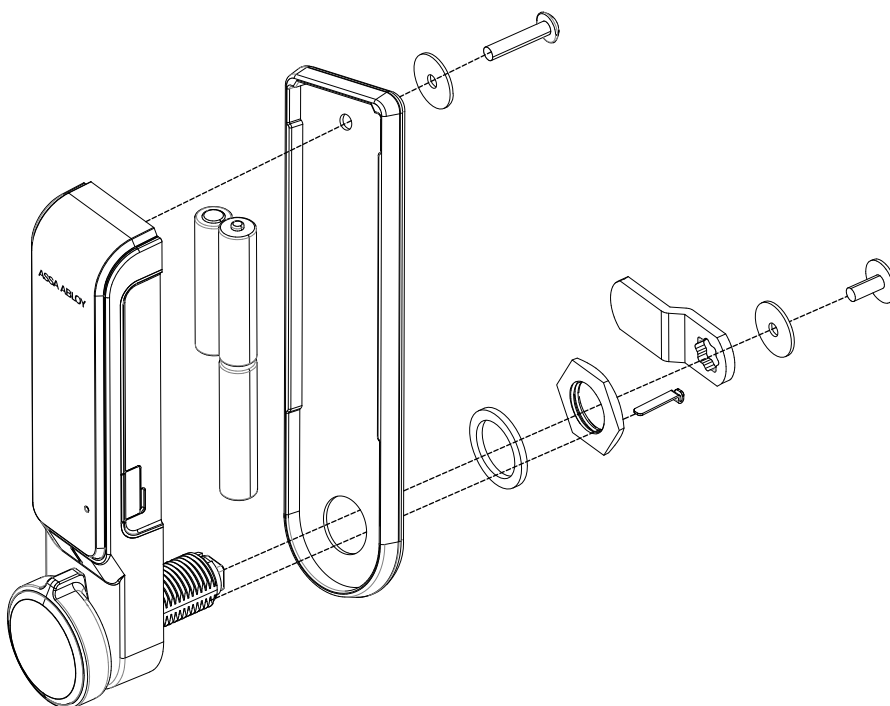
Digital PIN Keypad Version

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

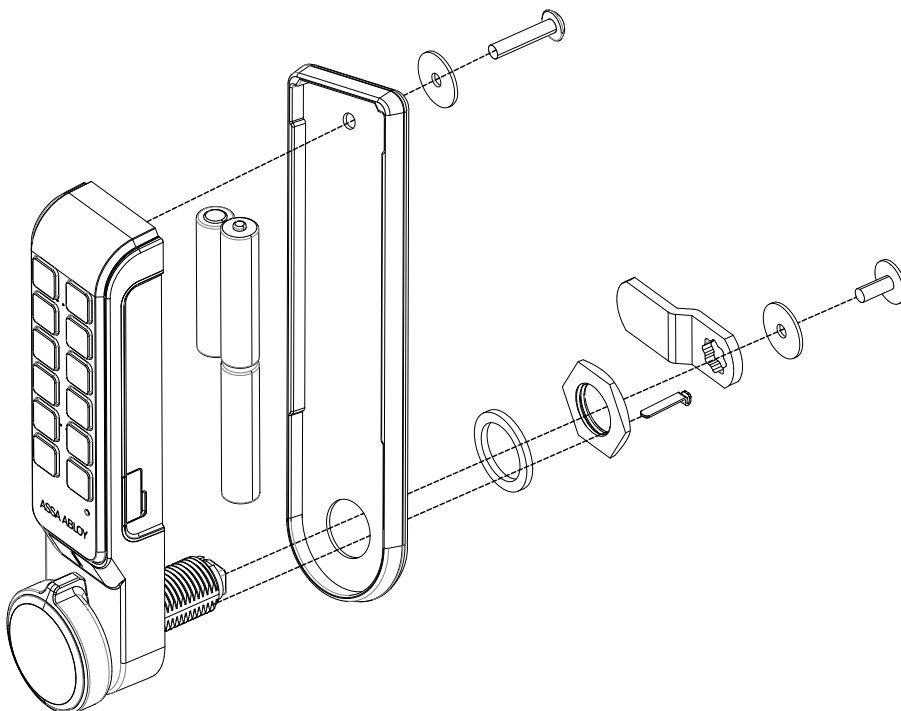- This function is used for short term, multi occupancy applications e.g. Locker in a fitness club

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℃ ～ + 70℃ 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.
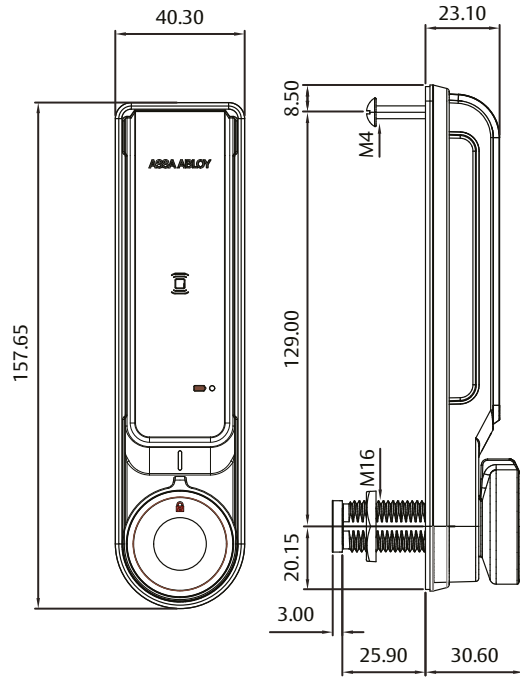
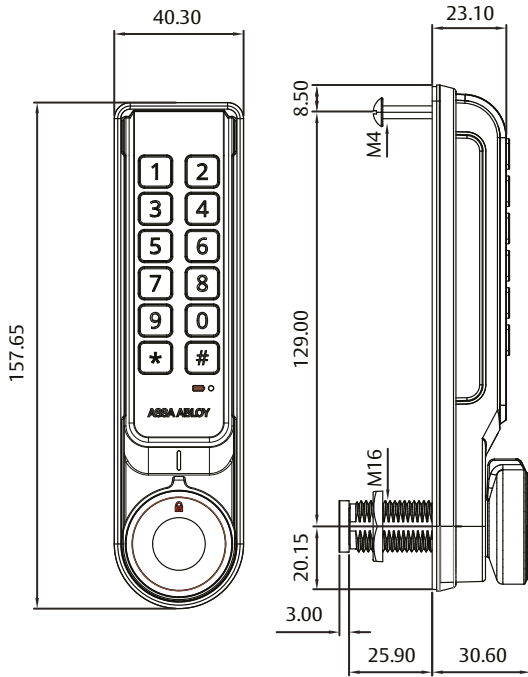● ML51PA locks are not designed for outdoor use.

ML51PA - Digital PIN Keypad Horizontal Specifications

ASSA ABLOY
Opening Solutions

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℃ ~ +70℃
	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.

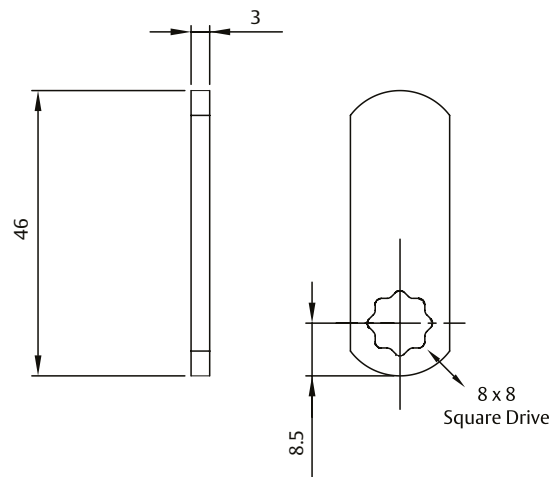Digital PIN Horizontal (Right Hand)

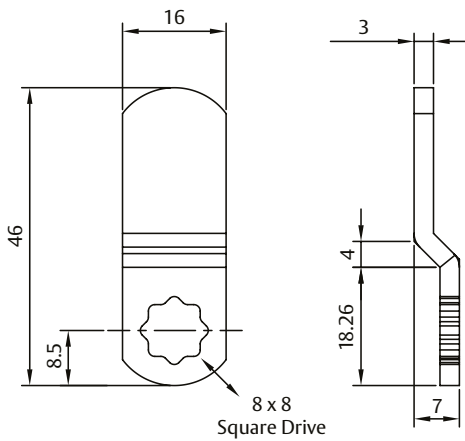Digital PIN Horizontal (Left Hand)

Digital Cam Lock Dimensions

ML51B00001 - ML51PA Digital PIN

40.30

23.10

8.50

M4

157.65

129.00

M16

20.15

3.00

25.90

30.60

ML52B00001 - ML52RA RFID

40.30

23.10

8.50

M4

157.65

129.00

M16

20.15

3.00

25.90

30.60

Offset Cam

16

3

46

4

18.26

8.5

7

8 x 8
Square Drive

Straight Cam

3

46

8 x 8
Square Drive

8.5

Note: Both the offset and straight cam are included with all cam locks.
All dimensions in millimeters.

The ASSA ABLOY Group is the global leader in access solutions. Every day, we help billions of people experience a more open world.

ASSA ABLOY Opening Solutions leads the development within door openings and products for access solutions in homes, businesses and institutions. Our offering includes doors, door and window hardware, mechanical and smart locks, access control and service.

ASSA ABLOY
Opening Solutions

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 **assaabloyopeningsolutions.com.au** or call **1300WARRANTY**

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MC13653