e·Smart

Wireless Online
Smart Locking Solution Provider

e Smart LOCK

e·Smart

Esmartlock Co., Ltd. is dedicated to providing innovative electronic locker lock solutions for our global customers & partners. From the conventional RFID card, PIN code solution to the latest leading-edge cloud based Smart code & Mobile key solution, Esmatlock is ready to supply a full range of electronic locking systems and further committed to leading future advanced locker lock solutions in the world.

Technology Leadership

Esmartlock continues to develop an innovative future locker lock solutions in design and technology including standalone locks, wireless online & cloud based mobile access locks.

Global Partnership

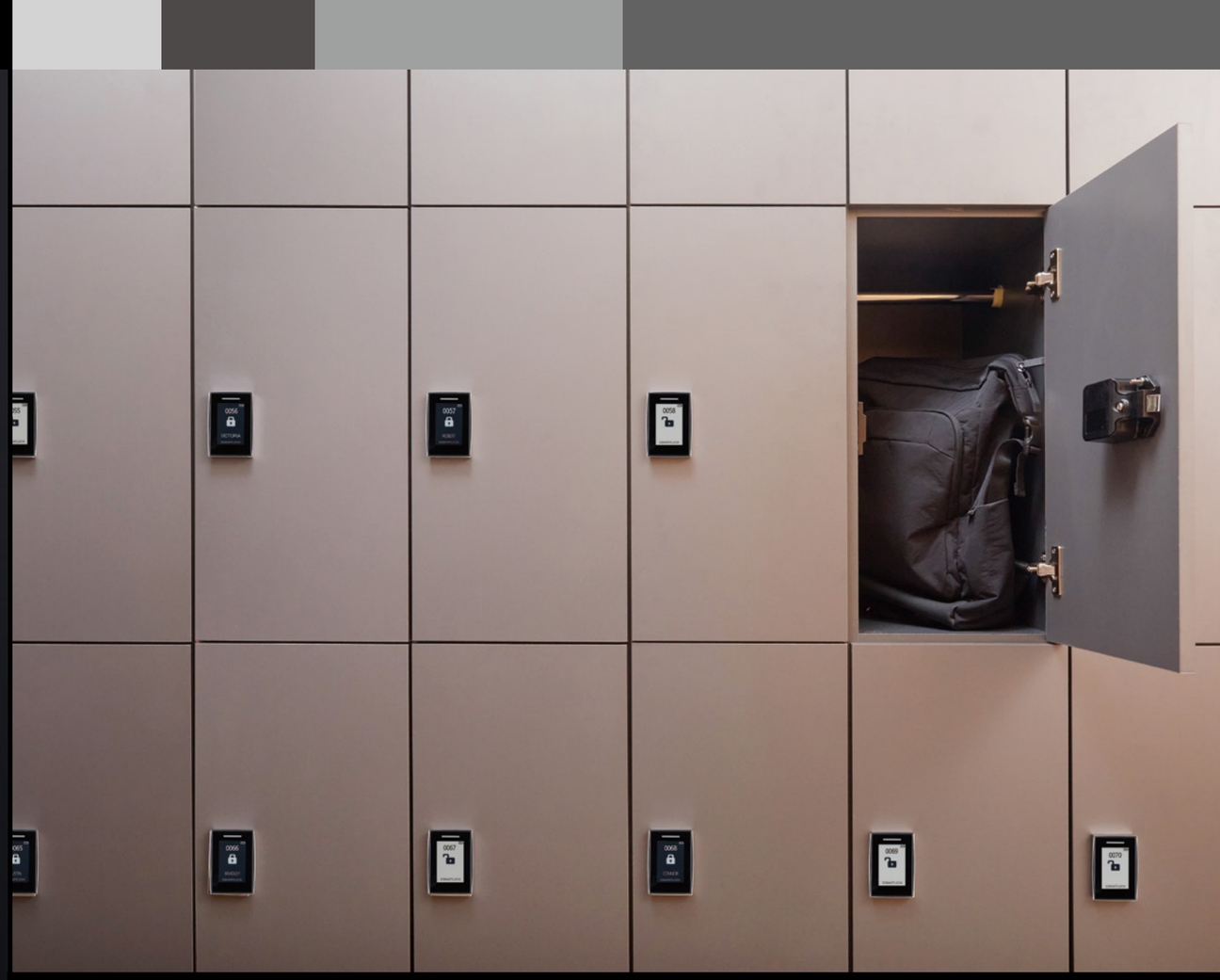
We are proud to work with our global partners who are brand furniture manufacturers, lock distribution channels & dealers and access solution providers. We are always opened to be your partners.

Customer service

Esmartlock listens to our customers' voices and provides a tailor-made customer services such as hardware & software customization services to fulfill customer requirements

Quality Commitment

We are committed to seamlessly improving the quality of products & quality processes to make more reliable products and eventually ensure customer satisfaction.



Why e·Smart ?

01
- RFID/Mobile technology R&D capability
- Rich and long experienced engineers
- Real-time customizing

02
- Own R&D (S/W, H/W)
- Own factory and quality assurance
- On-time delivery

03
- Proven quality in global market
- Reliable reference
- Competitive price

Wireless Online Smart Locking Solution Provider

Esmart
Wireless Online Lock
PT300BWR

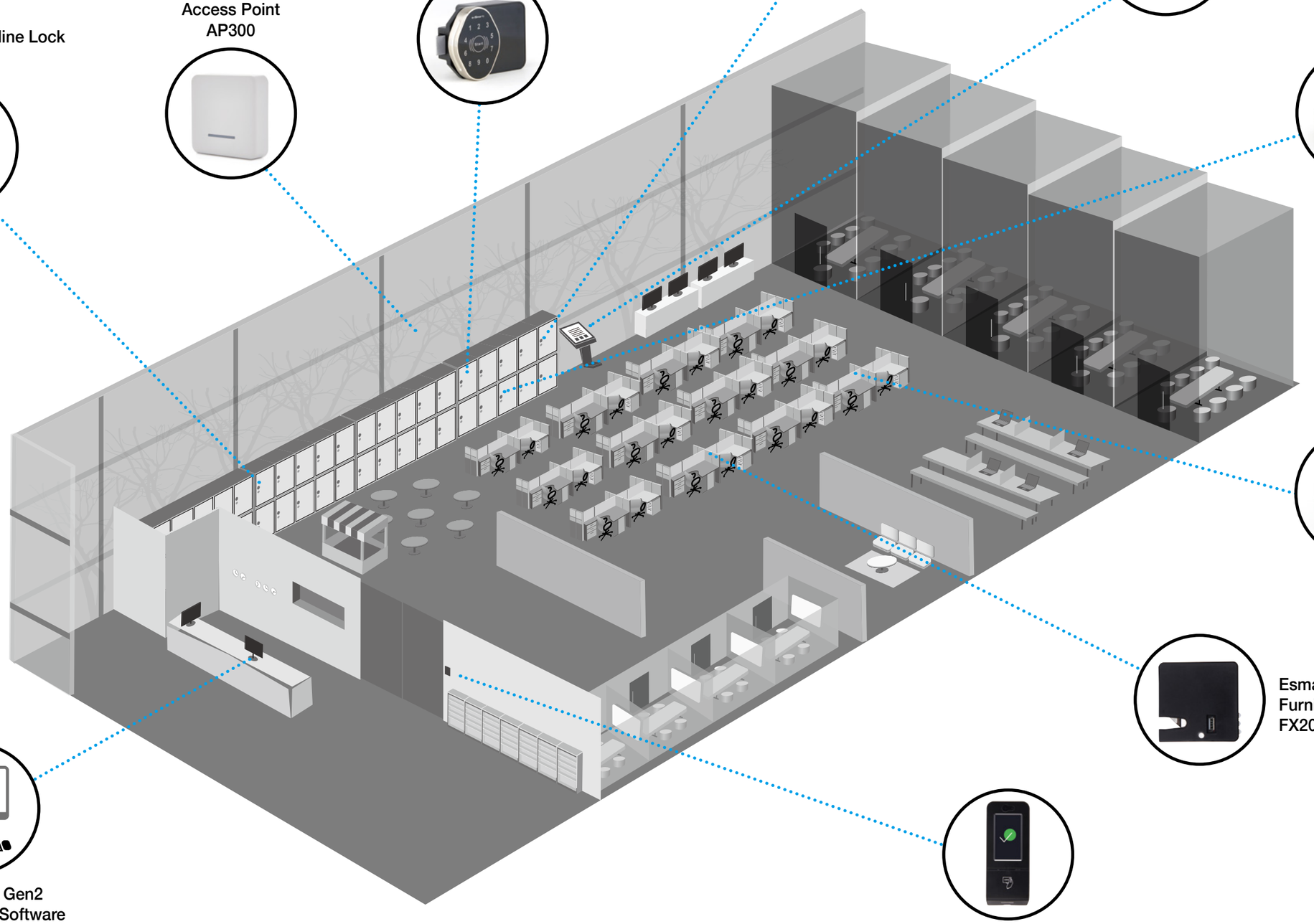
Kiosk Terminal

Esmart
Wireless Online Lock
SL600TWR

Access Point
AP300

Esmart
Wireless Online Lock
ZP100WR

Esmart
eDisplay Lock
SL300EWR



Esmart
Furniture Lock
FX300

Esmart
Furniture Lock
FX200_Wired Power

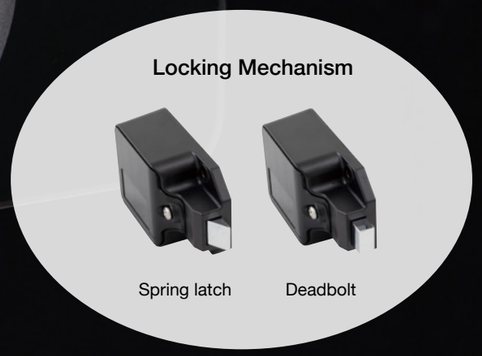
Esmart Ultra Gen2
Server & Client Software

Wall Reader & Info Terminal

Standalone Offline Lock

e-Smart Classic Series

User friendly standalone offline locker lock which provides you the most suitable operation mode in accordance with your preference.



e-Smart Classic Series

One Touch RFID

One Touch ZP100

Push Button RFID

Push Button ZP200R

Standard Keypad

Standard Keypad PT300BR

Metal Rubber Keypad

Rubber Keypad PT600B

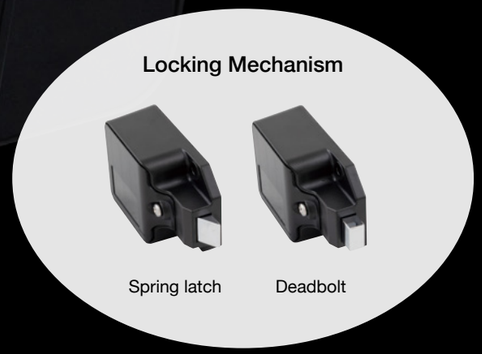
Feature

- Support various RFID credentials (13.56MHz ISO 14443 Type A/B - Mifare, DESFire, HID, etc.)
- Free mode (Shared use) / Assigned mode (Permanent use)
- Multi-User / Multi-Locker
- Time based operation function (Auto opening, Time limit, 3 Shift)
- Audit trail (Up to 150 events using the card or up to 2,000 events using the MIS App.)
- Lock information check (Lock ID, battery status, User card info, firmware version etc.)
- Easy Lock setting and management by one Setup card
- Easy to fit and retrofit (Metal, wood and laminate lockers)
- Spring latch / Deadbolt
- Powered by 4 AA batteries (Approximately 3~5 years battery life)
- IP55 rated for moisture and dust protection
- Support E-smart Mobile ID (Free locker selection by mobile APP)
- Support E-smart Mobile Sync (Synchronize RF card and smartphone BLE)
- Support E-smart Mobile Key (Cloud server generated mobile key - Optional)
- Support E-smart Smart Code (Optional, Keypad model only)

Wireless Online Lock

e-Smart Ultra Series

The world's first wireless online locker lock which enables you to monitor and control it in real-time from the center.



One Touch Online

Ultra One Touch ZP100WR

Push Button Online

Ultra Push Button ZP200WR

Touch Screen Online

Ultra Touch Screen PT200TWR

Standard Keypad Online

Ultra Keypad PT300BWR

Metal Touch Screen Online

Ultra Touch Screen PT600TWR

Feature

- Real-time monitoring
- Online setup and maintenance
- Audit trail - Online - Unlimited
  - Offline - up to 150 events using the card or up to 2,000 events using the MIS App
- Remote lock open/close
- Remote lock and card blocking
- Change password online
- Change user information online
- Support various RFID credentials (13.56MHz ISO 14443 Type A/B - Mifare, DESFire, HID, etc.)
- Free mode (Shared user) / Assigned mode (Permanent user) / Smart-Assigned mode
- Multi-User / Multi-Locker
- Time based operation function (Auto opening, Time limit, 3 Shift)
- Lock information check (Lock ID, battery status, user card info, firmware verson etc.)
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- Support E-smart Mobile Sync (Synchronize RF card and smartphone BLE)
- Support E-smart Mobile Key (Cloud server generated mobile key - Optional)
- Support E-smart Smart Code (Optional, Keypad model only)

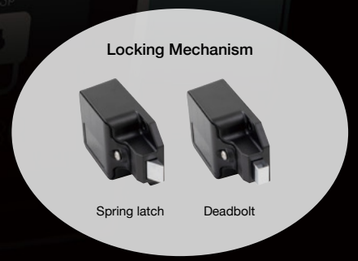
Wireless Online Slim Lock

e-Smart Slim Series

e-Smart Slim is designed modernistically and ergonomically for a convenient use. It is the most advanced and innovative locker locks with various types of lock selections. Not only offering an RFID locks, but also offering keypad and e-display(e-paper) options. By using the locks, it will allow you efficient management with high security.

e-Display Option

- Locker number / User name
- Occupancy Status
- Battery Status
- Customized image available.



e-Smart Slim Series

One Touch Online

One Touch SL100WR

Touch Screen Online

Touch Screen SL200TWR

Touch Screen Online

Touch Screen SL300TWR

E-Display Online

E-Display SL300EWR

Touch Screen Online

Touch Screen SL600TWR

E-Display Online

E-Display SL600EWR

Feature

- Real-time monitoring
- Online setup and maintenance
- Audit trail - Online - Unlimited
  - Offline - up to 150 events using the card or up to 2,000 events using the MIS App
- Remote lock open/close
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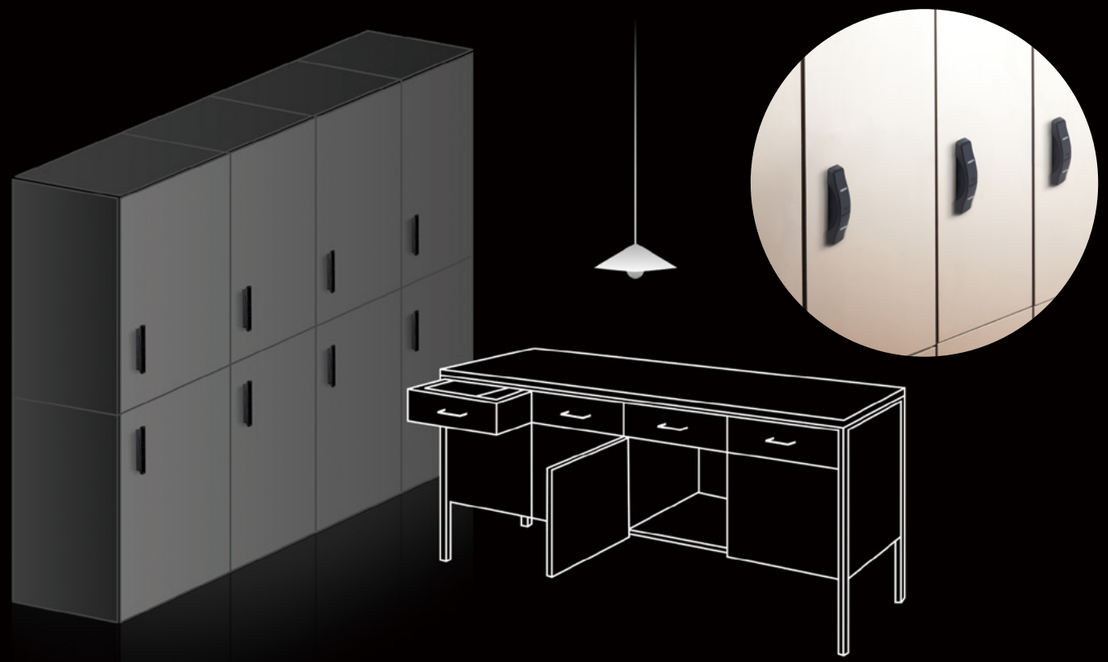
- Change password online
- Change user information online
- Support various RFID credentials (13.56MHz ISO 14443 Type A/B - Mifare, DESFire, HID, etc.)
- Free mode (Shared user) / Assigned mode (Permanent user) / Smart-Assigned mode
- Multi-User / Multi-Locker
- Time based operation function (Auto opening, Time limit, 3 Shift)
- Lock information check (Lock ID, battery status, user card info, firmware verson etc.)
- Easy lock setting and management by one Setup Card
- Easy to fit and retrofit (Metal, wood and laminate lockers)
- Spring latch / Deadbolt
- Powered by 4 AA batteries (Approximately 3~5 years battery life)
- Intuitive E-paper display
- Free to create the lock screens
- Support E-smart Mobile ID (Free locker selection by mobile APP)
- Support E-smart Mobile Sync (Synchronize RF card and smartphone BLE)
- Support E-smart Mobile Key (Cloud server generated mobile key - Optional)
- Support E-smart Smart Code (Optional, Keypad model only)

Wireless Online Furniture Lock

e-Smart Flex Series

e-Smart Flex Series is flexible for any usage in the office environment.
e-Smart Flex offers different types of locks that can be used for a different door types which gives you the ability to install them based on your tastes and needs. You can install Flex locks any types of furniture such as classic hinged door, sliding door, or even the back of the drawer. It also offers Kiosk solution that allows you to use in the retail market or the mail delivery box.



FX100-Battery Type

FX200 Side Lock-Wired Power

FX300-Furniture lock

Front & Striker option

Front & Striker option

FX400-Furniture lock

Feature

- Real-time monitoring
- Online setup and maintenance
- Audit trail - Online - Unlimited
  - Offline - up to 150 events using the card or up to 2,000 events using the MIS App
- Remote lock open/close
- Remote lock and card blocking
- Change password online
- Change user information online
- Support various RFID credentials (13.56MHz ISO 14443 Type A/B - Mifare, DESFire, HID, etc.)
- Free mode (Shared user) / Assigned mode (Permanent user) / Smart-Assigned mode
- Multi-User / Multi-Locker
- Time based operation function (Auto opening, Time limit, 3 Shift)
- Lock information check (Lock ID, battery status, user card info, firmware verson etc.)
- Easy lock setting and management by one Setup Card
- Easy to fit and retrofit (Metal, wood and laminate lockers)
- Spring latch / Deadbolt
- Powered by 4 AA batteries (Approximately 3~5 years battery life) - FX300 / FX400
- Powered by 3V CR123A battery (FX100) / 5V wired DC cable (FX200)
- Intuitive E-paper display
- Free to create the lock screens
- Support E-smart Mobile ID (Free locker selection by mobile APP)
- Support E-smart Mobile Sync (Synchronize RF card and smartphone BLE)
- Support E-smart Mobile Key (Cloud server generated mobile key - Optional)
- Support E-smart Smart Code (Optional, Keypad model only)
- Kiosk available
- USB device charging / LED Lighting available (FX200 Only)

Kiosk System Overview

For Mobile: on Lock
For RFID: on Kiosk

For Mobile & PIN: on Lock
For RFID: on Kiosk

AP300
(Zigbee Access Point)

TCP/IP

TCP/IP

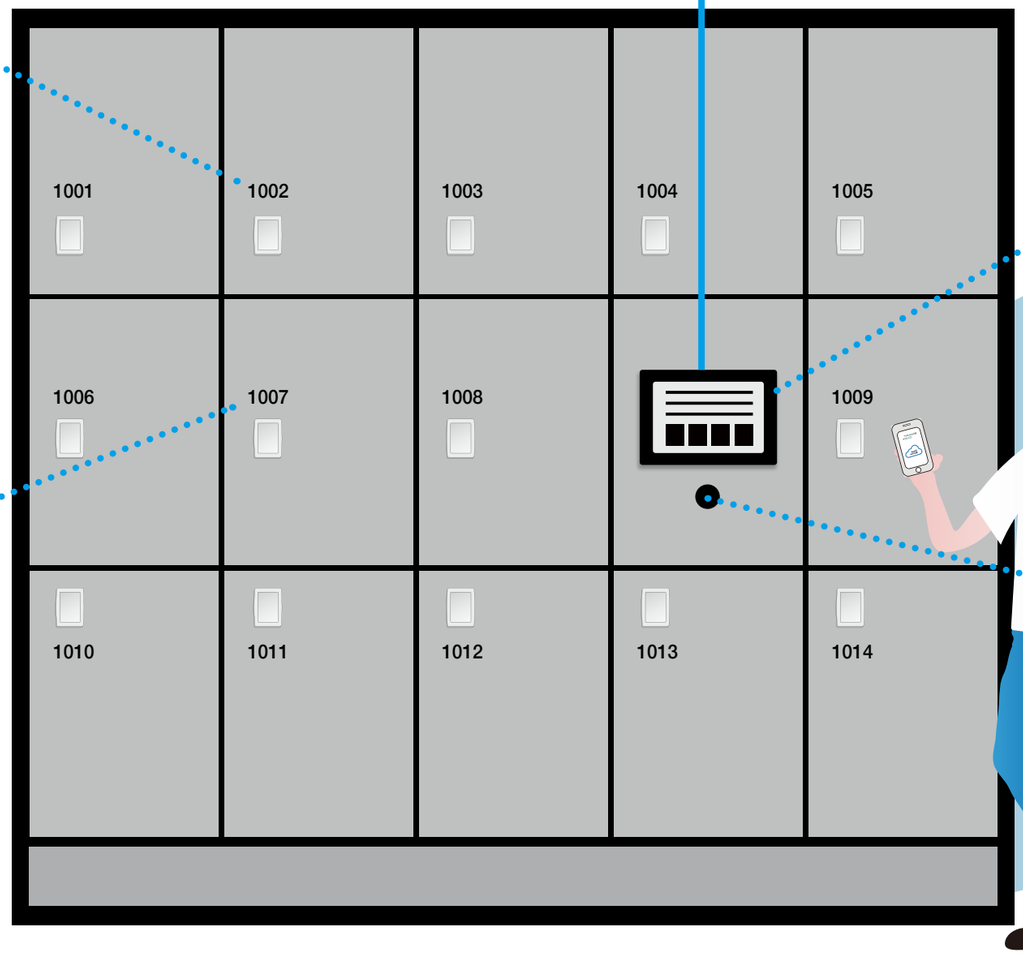
Optional

Cloud Server

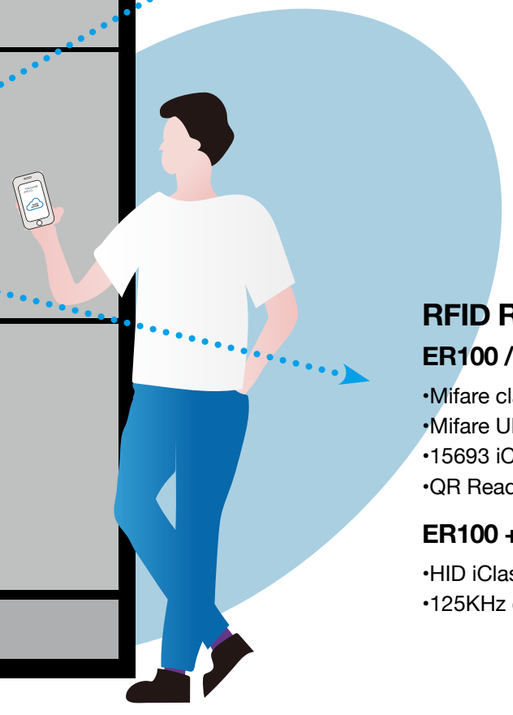
- Generate Smartcode & Mobile key
- Send Notification message to users

- Generate Smartcode and Mobile key
- Online lock status monitoring
- Remote lock control
- Database management

On-Premise Server & Client



10 inch Touch display



RFID Reader Module

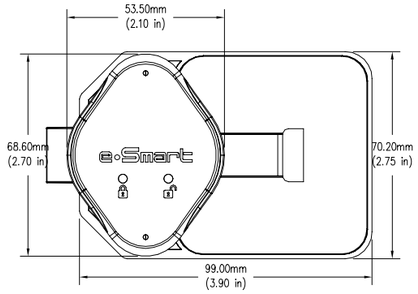
ER100 / ER200

- Mifare classic/Desfire card: Read/write
- Mifare Ultra light/Plus: CSN read only
- 15693 iCode card: Read/write
- QR Reader

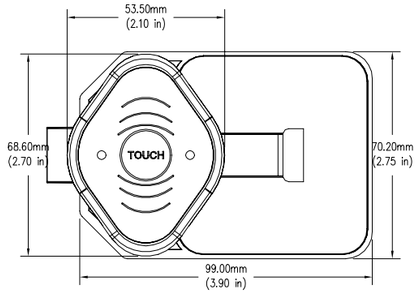
ER100 + RFID Module

- HID iClass card: CSN read only
- 125KHz card: CSN read only

ZP Series

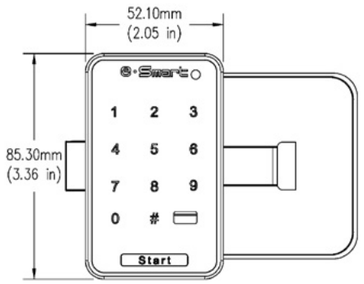


ZP100/ZP100WR

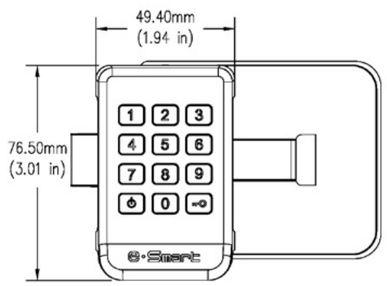


ZP200R/ZP200WR

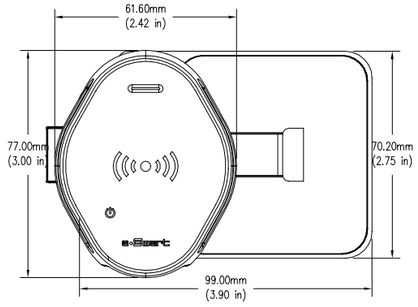
PT Series



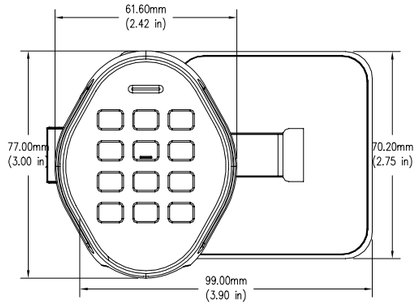
PT200TWR



PT300BR/BWR

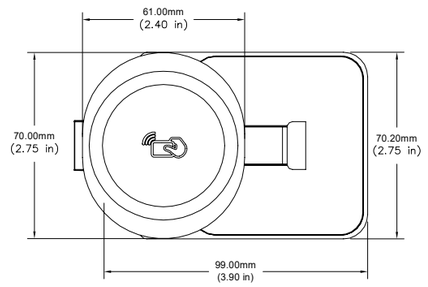


PT600TWR

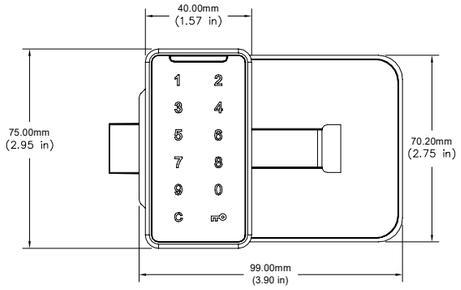


PT600B

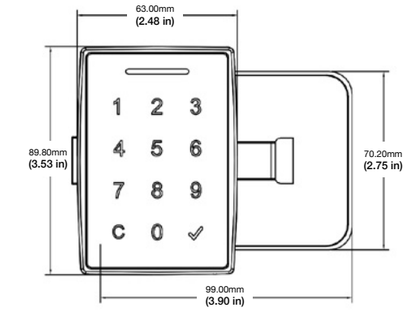
SL Series



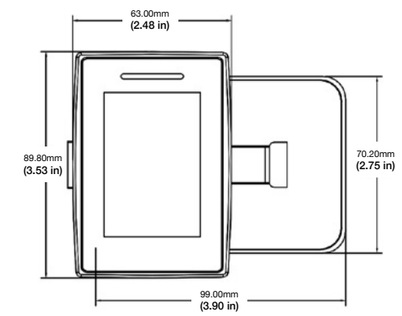
SL100WR



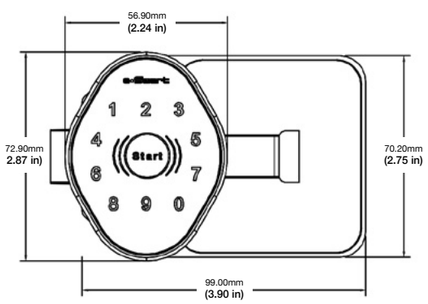
SL200TWR



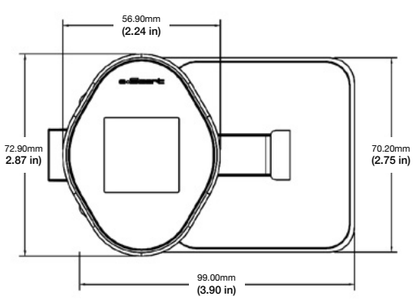
SL300TWR



SL300EWR

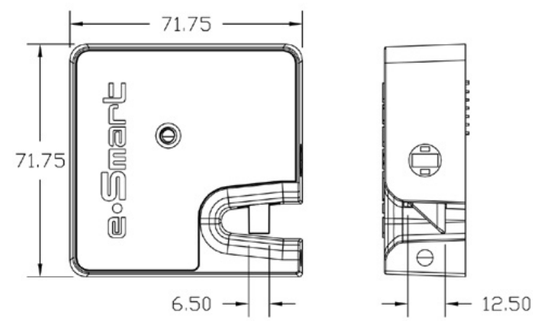


SL600TWR

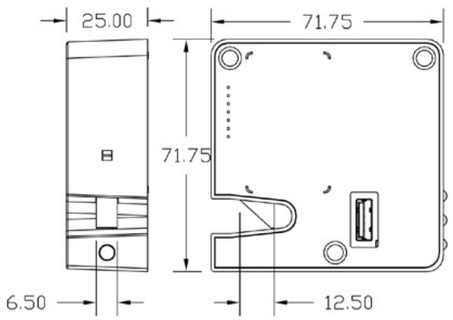


SL600EWR

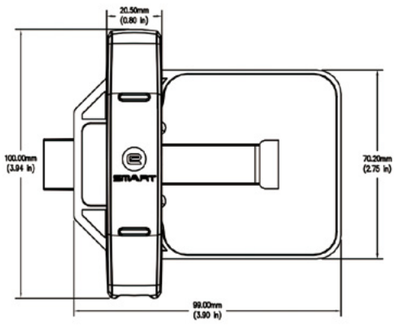
FX Series



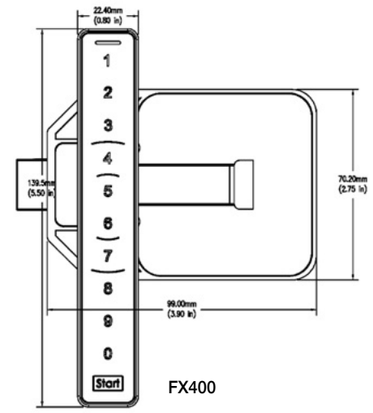
FX100



FX200



FX300



FX400

System Components & Peripheral Device

DE-620
(RFID card encoder)

AP300
(Wireless Access Point)

EC300
(Gate Controller & Reader)

RFID
Credentials

Emergency
Battery Pack I

Emergency Battery
Pack II (EP100)

iTOUCH PopX
(Info terminal)

Hotel Lock System
(www.smartelock.com)

DE620 RFID Reader

ITEM	SPECIFICATION
RF card protocol	ISO014443 A/B, Mifare, FeliCa, ISO-18092, ISO-15693
PC interface	USB 2.0
Input power	DC 5V, 200mA
Operation temperature	0°C~ 50°C

AP300 Wireless access point

ITEM	SPECIFICATION
Communication with Server	TCP/IP, 2.4Ghz Wireless(ONLINE LOCK COMM)
Material	Polycarbornate
Security	AES128
Indicator	LED
Effective range	About 50 meters in open area (without barrier)
Communication Frequency with locks	2.4GHz IEEE 802.15.4 Compliant RF Transceiver 40-50M (Between Lock and AP)
Dimension	101.60 x 101.60 x 27.50 (mm)
Input Power	DC 12V Adapter, POE (IEEE802.3af)
Operation temperature	0°C ~ 50°C (Operating), -40°C~85°C(Storage)
Certificate	CE, FCC

EC300 - Gate Controller & Reader

ITEM	SPECIFICATION
Power	IEEE 802.3af Power over Ehternet (PoE)
Credential	1. RFID Card: ISO014443 A/B, Mifare, Desfire 2. QR Code
Com. Protocol	TCP / IP

System cards

ITEM	SPECIFICATION
RF card protocol	ISO014443 A/B, Mifare, FeliCa, ISO-18092, ISO-15693
Operation temperature	0°C~ 50°C

Credentials

Item	Standard Wristbands	RF Cards	Various Types of credentials
Picture			Upon Demand
Material	Sillicone	PVC	
Dimension	L 28mm x W 18mm x T 2mm	L 85.6mm x W 54mm x T 0.86mm	
Color	Blue, Violet, Red	As on image	

Emergency Battery Pack

ITEM	Emergency Pack	EP100
Power	AA Battery X 4, 6V	
Switch	On / Off	On / Off Reset Button
Dimension	65x68x20mm	42x37x145mm
Master Key Function	X	O

Info Terminal & Wall Reader

ITEM	SPECIFICATION
RF card protocol	Mifare, ISO 14443 A/B, ISO 18092 (NFC), Mifare, DESFire, FeliCa
Frequency	13.56 MHz
LCD	3"TFT wide(800X480) - iTouchpopX
Touch	Resistive touch
Dimension	163*65*35mm - iTouchpopX
Input power	DC9~24V (9V/2A)
Operation temperature	-10 ~ 60°C

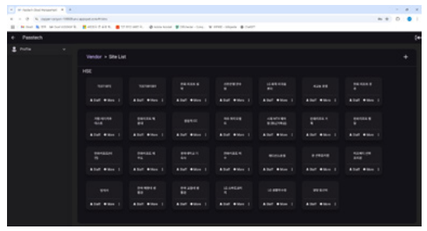
Info Terminal & Wall Reader

ITEM	SPECIFICATION
Power	DC12V
Credential	RFID card, Mobile Key
Communication Protocol	1. RFID Card: ISO014443 A/B, Mifare, Desfire 2. Mobile Access: BLE 4.0 3. Info Terminal Display(Locker No., Valid Date / Time)

Distributor and End-customer Management Software

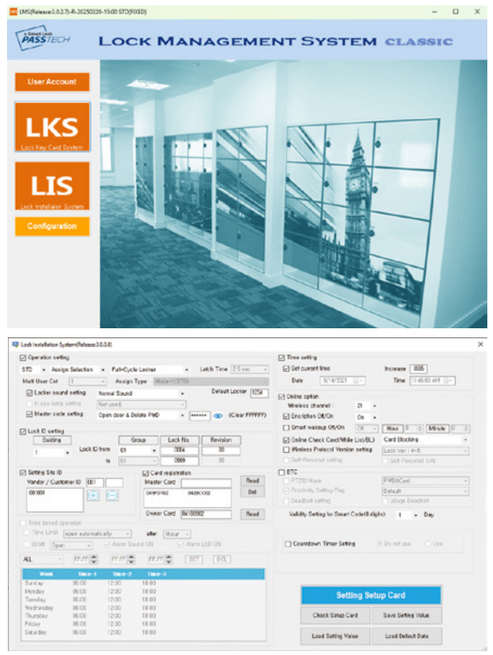
▶ Management Software for Distributor

· e-Smart Cloud Server / Cloud based Server



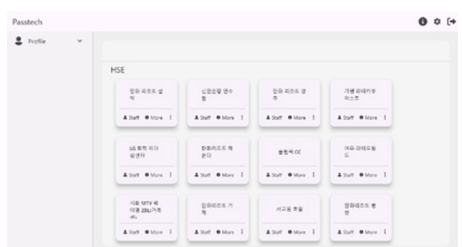
- Manage Vendor(distributor) accounts
- Manage End-client's site account for Admin mobile use (Distributor)
- Generate Mobile key & Smartcode

· e-Smart LMS (PTLKS) / On-Premise Lock Management Software



- Generate security key card for customerss
- Generate system cards
- Issue Setup Card
- Set lock operation mode
- Program various operation parameters
- Make blank cards

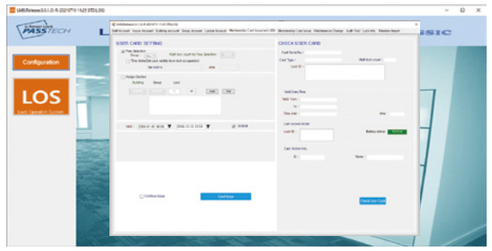
· e-Smart Cloud LIS / Cloud based Lock Management Software



- User Authentication / Site account info update from Cloud server
- Generate security key card for customers
- Generate system cards
- Issue Setup Card and set lock operation mode
- Make blank cards

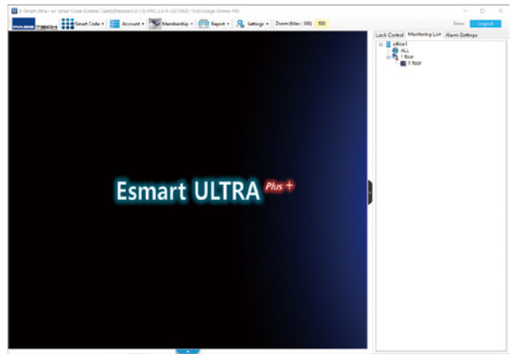
▶ Management Software for End-customer

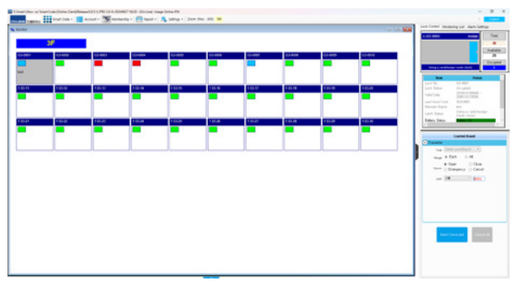
· e-Smart Classic LOS (For Offline Lock)



- Account management
- User Card issuance
- Audit trail and lock info check
- Lock maintenance
- Generating report
- Powerful database management

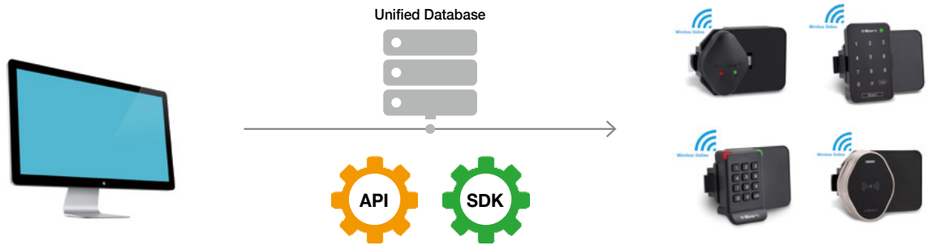
· e-Smart Ultra Plus Gen2 (For Online Lock)





- All functions in e-Smart LOS
- Real-time monitoring
- Remote lock open/close. Block/unblock
- Online user information change (RF cards, Password)
- Online audit trail and lock info check
- Online maintenance
- Connect multi-client software (PC)
- Customize monitoring layout
- Powerful database management
- Mobile Key & Smartcode Issue
- 3rd party interface (Shared DB)

e-Smart SDK (Software Development Kit)



- Third-party software companies and end-users are allowed to operate and manage E-smart locker locks by utilizing E-smart locking solution API (Application programming interface) to control access within their own applications.
- Customer can create card issuance and management system for applications.

SDK Packages	Provided by eSmartlock	Developed by Customer
Standalone Offline System (e-Smart Classic)	• DLL for card issuance • API documents for card issuance • API sample program and source code for card issuance • LMS software for making key card and programming locks (Customer must use LMS software as is)	• Offline Lock operation software (i.e. e-Smart LOS) needs to be developed by customer.
Wireless Online System (e-Smart Ultra)	• DLL for card issuance • API documents for card issuance • API sample program and source code for card issuance • Use LMS software for making key card and programming locks (Customer must use LMS software as is) • AP interface document for Access point & Server • AP interface sample program • AP interface sample source	• Online Lock Operation software (i.e. e-Smart Ultra Plus) needs to be developed by customer.
RESTful Server Interface (Wireless Online Server Interface)	• RESTful API protocol documents • RESTful API interface server program • RFID card issuance interface program for supporting multi-client PC software • e-Smart Ultra Plus Server & client software as is (Customer must use it as is) • LMS software for making key card and programming locks (Customer must use it as is)	• Customers need to develop the Lock operation program in their own software platform by using RESTful API Interface Program provided by eSmartlock.
Mobile User App For Anroid /IOS	• SDK for Android /iOS • Sample project(program source) for Anroid /iOS	• Mobile App for Android /iOS needs to be developed by customer.

▶ Function Comparison Table

	LMS	E-smart Classic LOS	E-smart Ultra Gen
Security Key Card generation	○		
System Cards generation	○		
Lock Programming	○		
Card Initialization	○		
User card programming		○	○
Smart Code & Mobile Key Issuance		○	○
Audit trail (Card)		○	○
Audit trail (Online)			○
Maintenance (Card) : Time update, Change of Master Cards, Time operation, etc.		○	○
Maintenance (Online) : Time update, Change of Master Cards, Time operation, etc.			○
Lock info collection		○	○
Lock status monitoring			○
Remote lock controlling			○
Remote card or lock blocking			○
Remote user changing			○
Remote password changing			○
Layout customizing			○
Multi-Client			○
3rd Party Interface			○

▶ System Requirements

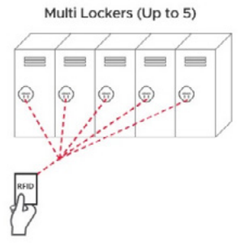
	LMS	E-smart LOS	E-smart Ultra Plus +
OS	Window 10 or Higher		
RAM	16 GB or higher		16GB or higher
Admin privilege	No administrator right requirement		

Standalone Offline

Offline Lock Operation Software

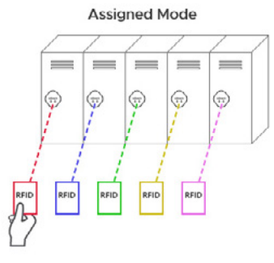
Free Selection mode (Shared use)

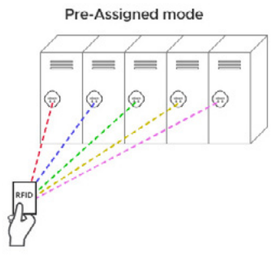
- User can select any empty locker to use as they wish
- Programmable to make LED lamp blinking to represent locker is in use (In use lamp)
- Programmable to use multiple lockers (up to 5) with one User card (Multi-lock)
- Programmable for Time based operation

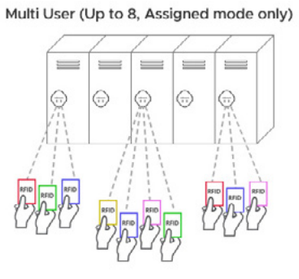


Assigned mode (Permanent Use)

- Use can only use a certain assigned locker
- User card can be assigned to a lock in advance
- User can select any empty locker at first to assigned the User card to the lock
- Programmable to use multiple lockers (up to 5) with one User card. (Multi-lock)
- Programmable to use multiple User cards (up to 30) to one locker (Multi-user)







Wireless Online

e-Smart Ultra series are representatives of wireless online solution.
With the help of the powerful database based lock operation software (E-smart Ultra Plus+), you can monitor and control locks remotely in real-time. The solution provides you full lock control and increase the efficient of your facility administration.

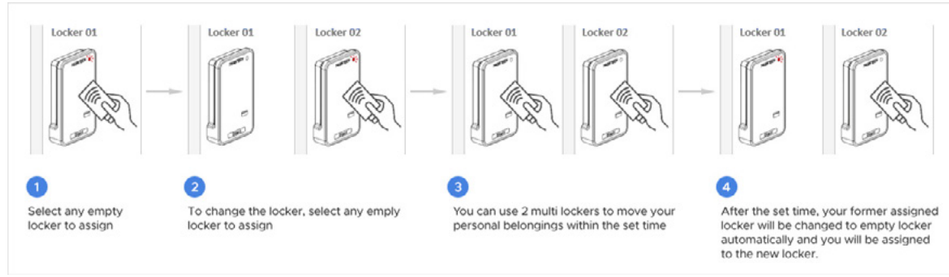
E-smart Ultra Plus+ offers a powerful database management and convenient central control functions such as:

- All functions in E-smart LOS
- Powerful database management
- Real-time monitoring
- Remote lock open/close, block/unblock
- Online user information change
- Online audit trail and lock info check
- Online maintenance
- Connect multi-client software
- Customize monitoring layout
- 3rd party interface

Operation Mode - Free/Assigned mode default support

Smart Assign mode

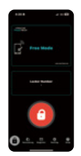
- User can select any empty locker and the user is assigned to the chosen locker.
- Without the help of administrator, user can freely change the assigned locker to any empty locker.
- Programmable to make LED lamp blinked to represent locker in use.
- Programmable to set specific time to release the assigned locker to empty locker after the changing the locker.



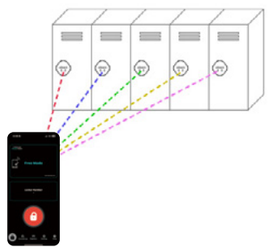
Mobile Access

Mobile ID

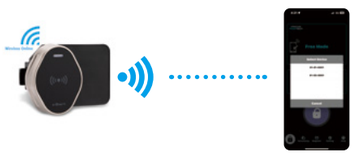
1. Download 'E-Smart Sync' APP and run it.



2. Wake up any empty locker to occupy.



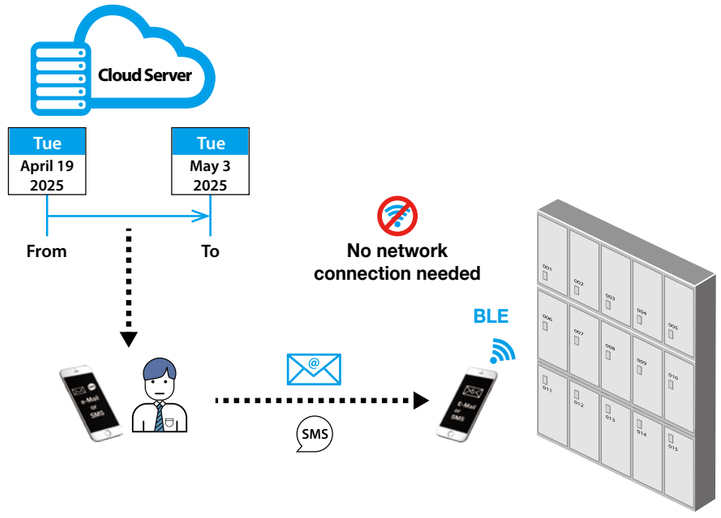
3. Select the lock number from the list on the app.



Simple mobile access via E-Smart Sync Mobile APP without RFID card

e-Smart Mobile ID enables you to choose and operate any empty lock as you wish in CSN Free Selection mode without any RFID card or other credentials.
The enhanced security algorithm provides more advanced and efficient approach towards managing the locks at various kinds of venues, such as hotels, resorts, fitness centers, schools, universities, hospitals, clinics, government entities, etc..

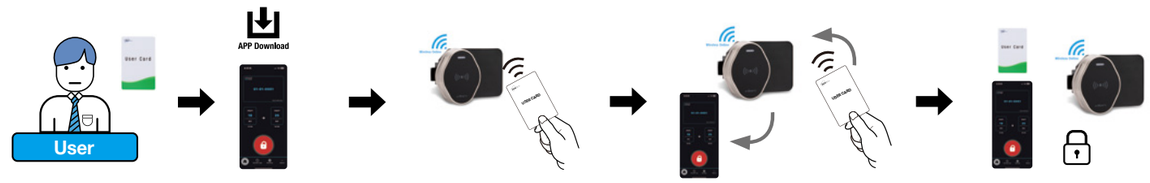
Mobile App Key



- √ No network connection needed
- √ Encrypted mobile key by mobile app (Mobile app needed) – Over 2~3 seconds for access authentication
- √ Bypass front desk for registration
- √ No risk of losing keys or cards
- √ No contact for check-in or key exchange
- √ No guest card needed – cost save

Mobile Sync

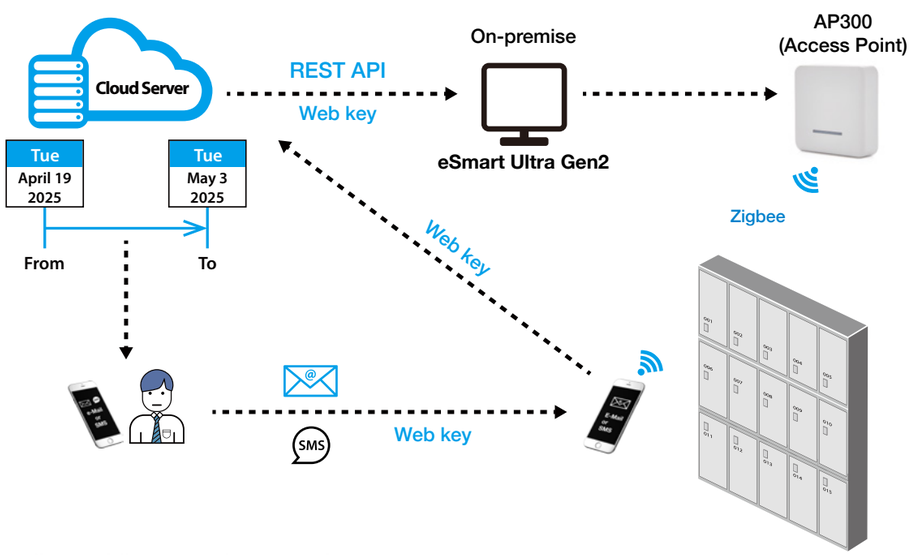
1. Get a User Card
2. Download 'E-Smart Sync' APP and run it.
3. Scan the User Card on a lock and put '99 + key(start)' button to register.
4. Touch 'Register' Button on the APP.
5. You can use both User Card and smartphone after registration.



BLE mobile access technology based on synchronization between RFID card and smartphone.

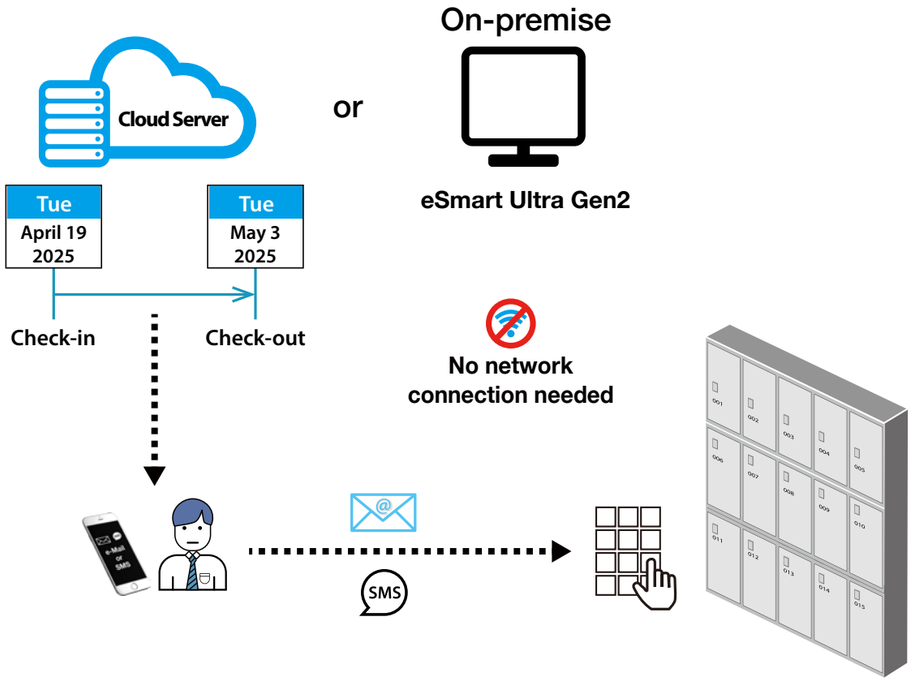
E-smart Mobile Sync is the world's first mobile access solution based on key synchronization between RFID card and smartphone.
The solution is very flexible and adaptable to various types of configuration.
Moreover, E-smart Mobile Sync can be easily programmed to work in assigned mode with Multi-user and Multi-lock functions.
In addition to that, multi-functionality and accessibility via various credentials makes E-smart Mobile Sync the best solution to meet even the most demanding operation requirements.

Mobile Web Key

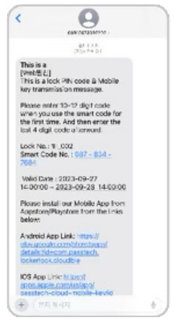


- √ Real time online mobile access by smartphone, No mobile app needed – 1~2 seconds for access authentication
- √ Network connection always needed
- √ Bypass front desk for registration
- √ No risk of losing keys or cards
- √ No contact for check-in or key exchange
- √ No guest card needed – cost save

10 Digit SMARTCODE(Time Sensitive) - Offline



- √ Completely Work offline
- √ Receive 10-12 digits SmartCode by SMS
- √ Enter 10-12 digit SmartCode for the first time authentication and use the last 4 digits afterward.
- √ Suitable for a group of guests
- √ Bypass front desk for registration
- √ No risk of losing keys or cards
- √ No guest card needed – cost save

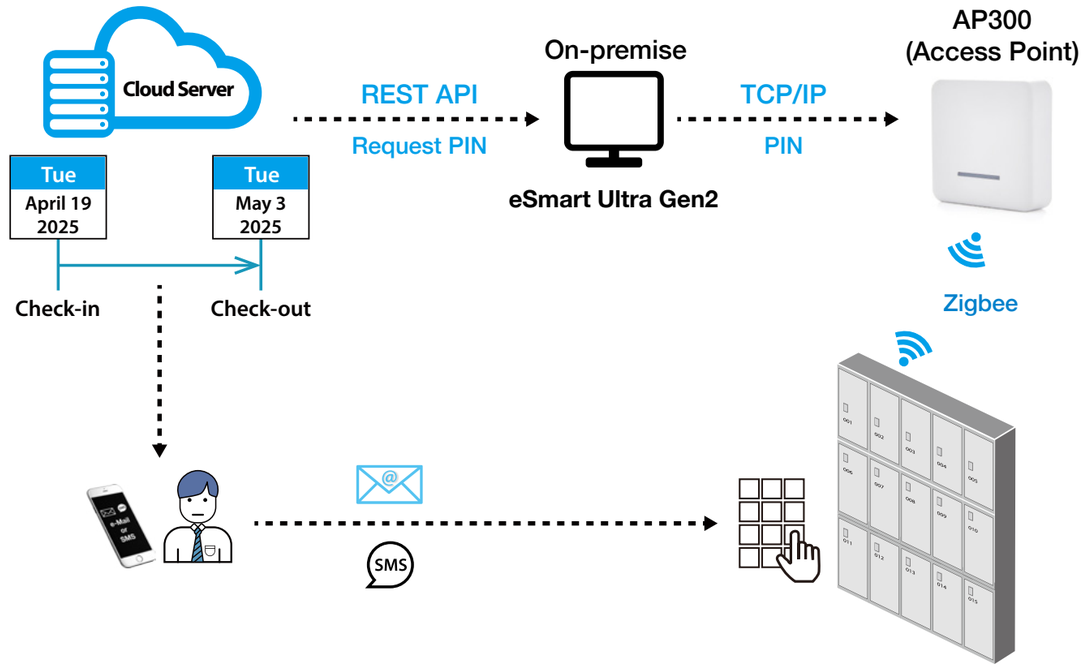


1 Receive smart code (10-12digits)

2 Only for first time, use the 10-12digits smart code on the lock

3 Use only the last 4 digits of the smart code to access the lock

4 Digit SMARTCODE(Time Sensitive) - Online



- √ Must Work online
- √ Receive 4 digits PIN code by SMS and enter it.
- √ Enter 10-12 digits SmartCode in case of network failure.
- √ Suitable for a group of guests.
- √ Bypass front desk for registration.
- √ No risk of losing keys or cards.
- √ No guest card needed – cost save.

1 Receive smart code (4 digits)

2 Use 4 digits received to access the lock

CSN (Chip Serial Number) Mode

eSmartlock products are designed to work with the international standard credentials including not only IOS 14443 Mifare/Desfire card, but also compatible with ISO 155693 iCode & HID iClass card.
In order to support those credentials in our system, we have CSN operation mode in which the lock only reads RF chip serial number of the card, but does not write any data to the cards.

▶ Supporting RFID credentials

- ISO 14443A/B, Mifare classic, Desfire card and etc.
- ISO 15693-2/ISO15693-3
- iClass Tag or PicoPass Tag compatible card
- Card reader: OMNIKEY 5022 or 5027

▶ Supporting Operation Modes

Functions	CSN offline mode	CSN online mode
Operation modes	Free/Assigned	Free/Assigned/Smart Assigned
Reads CSN of card	O	O
Time Based Operation	O	O
Register user by master card	O	O
Audit trail	By Card	By Card/Online
Control the locker user online (Register users on the DB)	X	O
Limit Multi locker use	X	O
Remote lock controlling (Open/close)	X	O
Real-time lock status monitoring	X	O
Remote User/Password change	X	O
Online Maintenance	X	O
Remote Lock blocking	X	O

Real Time Monitoring
- Checking your locks in real-time. You can check Battery status, Lock occupancy, Alarm, Lock event history, etc. easily without any delay.

Online Audit Trail
- You can collect Audit Trail of each lock without using Audit Trail Cards.

Remote Lock Open & Close
- If you want to open a specific lock or if you want to make a specific lock stay closed, simply manage it through one single mouse click from Ultra Client software.

White list online Database
- You can use any RF card without issuing user card from the program.
- By inputting the CSN in the database, you can manage and control the users in CSN mode.

Lock Blocking
- You can block any lock from Ultra Client. Blocked lock doesn't accept any User Card unless you unblock it on program.

Remote Card Blocking
- You can block cards online for your best security.
- Cards are blocked against being used by people

Online Setup & Maintenance
- Do you still bring Setup & Maintenance Card and scan them on locks one by one for setting?
- New Ultra Client sets various functions to all locks at once with one mouse click

Customize your Monitoring Layout
- No more tedious rectangles.
- Your own customized layout of lockers displays on Lock monitoring.
- Arrange the lockers in New Ultra Client just like a real layout, and manage it more easily and efficiently.

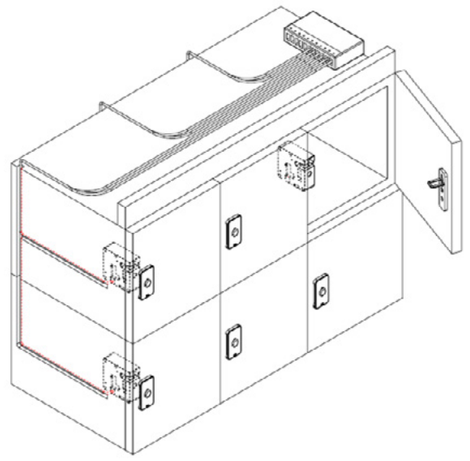
Time based operation
- Doors open automatically at programmed time.
- Set a time limit on user access.

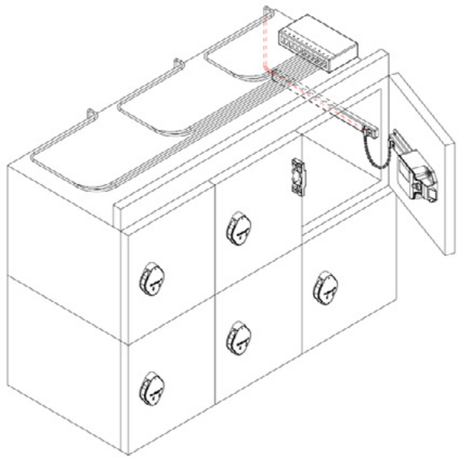
Power Solution

Battery Power

4 x AA Alkaline Batteries

Wired Power





Wired Power Accessories (Optional)

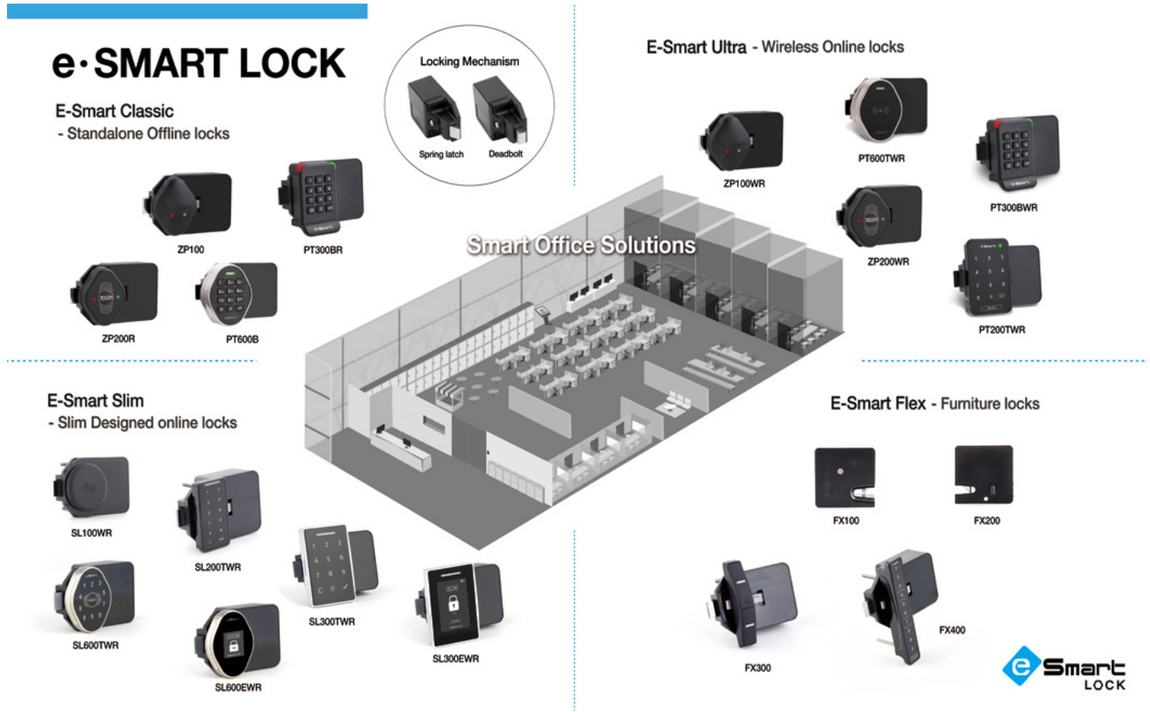
Hard Wired Locker Locks

Power Supply Device and allotter (USB 10 ports)

Power usb cable (5m)

Door Loop

Portfolio of e-Smart Locker Locks



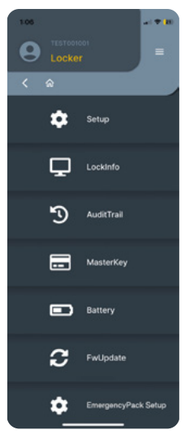
Maintenance Tools

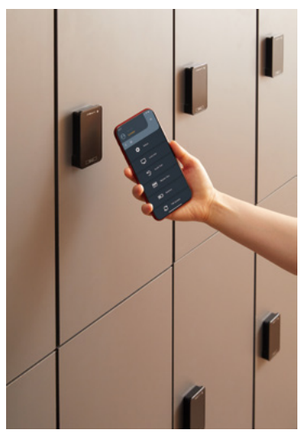
System Card Set

- Key Card
- Setup Card
- Owner Card
- Master I Card
- Master II Card
- Lock Info Card
- Audit Trail Card
- Maintenance Card

System Card Set

Admin App(Lock Management App)





- Lock Setup
- Lock Info Check
- Audit Trail
- Master Key
- Battery Status
- Firmware Update
- EP100 Setup

Applications

Workspace

Education

Fitness

Smart Office

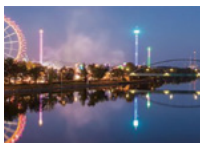
Water Parks

Healthcare

Goverment

Pro Sports

e·Smart



e·Smart

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