Designed by CybTech
Delivered by Xmetra

Keyless Smartphone based access controller

Area of application

The *SmartAirkey* access controller *(SimpleLock)* is an electronic device which was designed to control physical access with the help of a smartphone with enabled Bluetooth (BLE) and designated App for iOS or Android.

The controller can be used to manage access through doors,barriers, gates, turnstiles and other means of limiting access both independently and as part of the Access Control System (ACS).

Electrical connection

When installing the controller, pay attention to the polarity of the wires and the proper rate of the voltage delivered from the power supply unit.

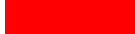Picture 1. SmartAirkey controller (SmartLock) front view.

Color of wire	Code	Pin name	Application
Red		12V	Power (+) 12 VDC
Black		GND	Power (-) GROUND
Yellow		NO	Relay
White		COM	Relay
Orange		NC	Relay
Dark-green		ID0	Wiegand interface Input
Lite-green		ID1	Wiegand interface Input
Brown		GND	Common line Wiegand Input
Pink		OD0	Wiegand interface Output
Grey		OD1	Wiegand interface Output
Violet		GND	Common Line Wiegand Out
Blue		IN	Input (optically isolated)

Table 1.Wiring diagram

Use cases

Parking space.

Users can open the controller in three ways:

- Automatically as the Smartphone approach (enter controller's operational are).

- Using a gesture

- Pressing the virtual button in the Mobile App

In the case where entry and exit are made through different barriers installed side by side, controllers for both directions should be directed to the approaching cars and spaced at the maximum distance. Approach or gesture will trigger the controller, which will be closer to the smartphone.

Front door.

Users can also open the controller in three ways:

- Automatically as the Smartphone approach (enter controller's operational are).

- Using a gesture

- Pressing the virtual button in the Mobile App

As usual, the controller is installed outside the front door, due to this automatic-opening is providing when entering the front door from the street. To exit outside from the building, the exit push button, or the motion sensor should be connected to the controller.

Office/server room/warehouse/residence entrance

In case of using the controller mounted on the wall, users can open the door in the following ways:

- Bring the phone to the controller for a distance of 5-10 cm.

- Using a gesture
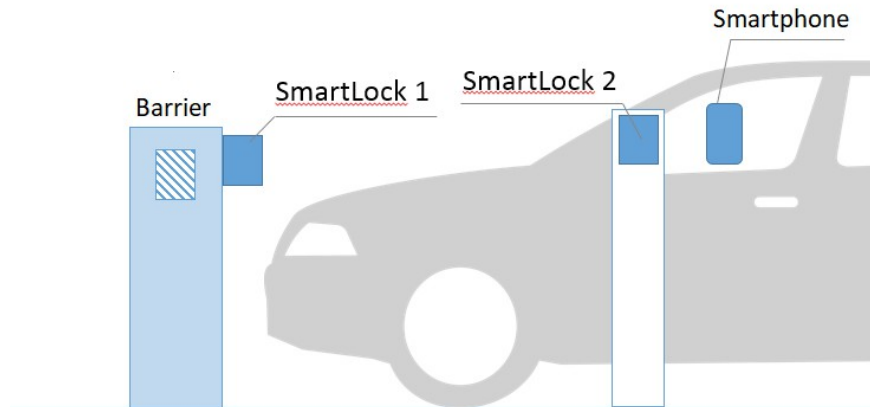
- Pressing the virtual button in the Mobile App

Installation

Parking space.

The controller is mounted on the barrier post or separately in front of the car's windshield.

In the case of the presence of pedestrians in the immediate vicinity of the barrier and to exclude the accidental opening of the barrier:
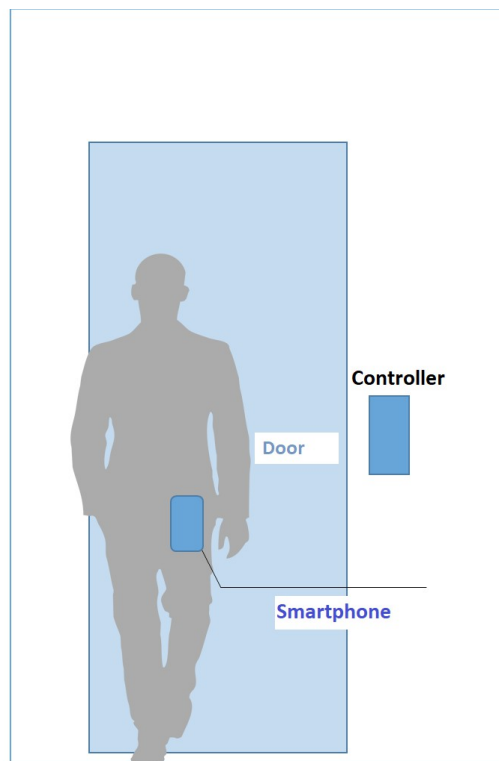
- Alternatively, car presence sensor shall be installed

- Either automatic opening is forbidden and opening by gesture or application interface is used

Picture 2. Installation on the boom barrier.

Front door/entrance.

Controller is installed on the wall outside next to the door.

Picture 3. Installation on the front door/entrance

Specification

- Interfaces to receive and transfer digital keys or service commands to a smartphone:

  Bluetooth (BLE)

- Interfaces of interaction with external systems (ACS servers, ACS controllers, RFID readers):

Wiegand 26

- Control electrical locks, barriers, etc.

  1 x relay 250V~3A

- Connection of sensors (photocells, microwave sensors, reed switches, proximity, etc.):

  1 x optically isolated input (High-Low)

- power supply voltage — 9-15 VDC

- Electrical current at 12 VDC— not more than 0,2 A

Contact details

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