**WIRING DIAGRAM**

NOTE:

To prevent this device damaged by back EMF, connect 1N4004 or similar diode in parallel to power terminals of the lock as close as possible.
1) Change Access Setting
   a) * # 333333 [short beep] , 01 ( Card + Pin ) [long beep] , *
   b) * # 333333 [short beep] , 02 ( Card or Pin ) [long beep] , *
   c) * # 333333 [short beep] , 03 ( Card only ) [long beep] , *
   d) * # 333333 [short beep] , 04 ( Pin only ) [long beep] , *

2) Add New Card
   • * # 333333 [short beep] , 06 [ short beep ] , show card [long beep] , *

3) Delete Card
   • * # 333333 [short beep] , 07 [ short beep ] , show card [long beep] , *

4) Delete card & user ( all code )
   • * # 333333 [short beep] , 08 [ long beep ] , *

5) Electric Magnetic Lock Time Setting
   • * # 333333 [short beep] , 09 [ short beep ] , ( 00~60) [long beep] , *

6) Door Open Time Setting
   • * # 333333 [short beep] , 10 [ short beep ] , ( 00~99) [long beep] , *

7) Security Setting
   a) * # 333333 [short beep] , 11 [short beep] , 0 [long beep] , * DISABLE

8) Change Master Code
   • * # 333333 [short beep] , 12 [ short beep ] , New code , New code [long beep] *

9) User Pin Code - 10 user code
   • * # 333333 [short beep] , 13 ~ 22 [ short beep ] , 4 New code [long beep] *

10) Delete User Pin Code - 10 user code
    • * # 333333 [short beep] , 13 ~ 22 [ short beep ] , 0000 [long beep] *

11) Reset to Factory Mode
    Step1) Turn Off Power, Press & hold * #
    Step2) Turn On Power, release * # after 5 second.

DESCRIPTION

- Standalone device
  - Ideal for single door system, controlling electric lock, security system
- Verify via password and/or card
  - Four types of verification mode for greater security
- Weatherproof design

SPECIFICATION

- Water resists ability, suitable for indoor or outdoor
- Anti-card collision function
  - Free from double read situation
- LEDs and electronic buzzer
  - Provides positives audio-visual feedback to user operations
- EM Proximity card compatible
- Exceptional level of detection capability, high reliability, consistent read-range and stability

APPLICATIONS

- Single door access control system
- Personal identification
- Parking system
- Security system
- Terminal system

DATA CONNECTION

<table>
<thead>
<tr>
<th>Color Code</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shielded lead-out</td>
<td>Gnd1</td>
<td>(-)12VDC</td>
</tr>
<tr>
<td>Red</td>
<td>12V</td>
<td>(+)12VDC</td>
</tr>
<tr>
<td>Brown</td>
<td>Gnd2</td>
<td>Exit Button COM</td>
</tr>
<tr>
<td>Orange</td>
<td>PBt</td>
<td>Exit Button N.O</td>
</tr>
<tr>
<td>Black</td>
<td>Gnd3</td>
<td>Door Sensor COM</td>
</tr>
<tr>
<td>White</td>
<td>DrSs</td>
<td>Door Sensor N.C</td>
</tr>
<tr>
<td>Green</td>
<td>DrCOM</td>
<td>Door Control Relay COM</td>
</tr>
<tr>
<td>Yellow</td>
<td>DrNC</td>
<td>Door Control Relay N.C</td>
</tr>
</tbody>
</table>
Blue | DrNO | Door Control Relay N.O
Gray | AlmNC | Anti-tamper N.C
Pink | AlmCOM | Anti-tamper COM
Purple | AlmNO | Anti-tamper N.O

**FEATURES**

- **Mounting**: Unobtrusive design for easy installation; can be mounted directly onto metallic or wooden door frame.
- **Audiovisual Indication**: Red and Green LED for status indication. Beeper will sound when card presents or the access is granted.
- **Safety**: Built-in power circuit protection and watchdog function.
- **Indoor / Outdoor design**: Sealed with water resistance, weatherized polycarbonate enclosure designed to withstand harsh environments, providing reliable performance and a high degree of vandal resistance.
- **4 types of door operation mode**: Card and PIN mode, Card or PIN mode, Card mode and PIN mode.
- **Proximity card**: Support most of the ISO 125KHz proximity card, thin card with 0.8mm, thick card with 1.8mm or keyfob.
- **User PIN**: Provided 10 sets of door opening password when user sets the operation mode to Card and/or PIN mode or PIN mode.
- **Maximum card storage**: 1,000 cards can be stored or erased from the controller nonvolatile memory.
- **Security Lockout**: When security lockout function enabled under Card and PIN mode, user will be blocked if keys-in password wrongly for three times.

**FRONT PANEL**

1. **Indicator lights**:
   - STATUS light (Green) – Door access granted or under programming mode
   - POWER light (Red) – Flashing during system operating

2. **Ten enter keys, two functional keys**:
   - # key – Master password starting key.
   - * key – Clear or escape key.

**NOTE:**
The receiving antenna is hidden behind the keypad. Therefore, the best reading range for the proximity card is located at the center of keypad.

**MODES & FUNCTIONS SETTING**

To enter programming mode, press master password “#333333” (default master password). A beep sound will be heard and STATUS light turns on once the user enters programming mode successfully.

User can leave programming mode by pressing a “*” key. Else, the device will stay in programming mode after each setting. If user does not press any key for 10 seconds, the device will leave programming mode automatically.

1. **Operating Mode Setting**

   By default, the device is set to operate under Card or PIN mode, which is “02”. To change the operating mode, press master password and follow by pressing

   - “01” : Operating under Card and PIN mode.
   - “02” : Operating under Card or PIN mode.
   - “03” : Operating under Card mode.
   - “04” : Operating under PIN mode.
2. Lockout function Setting

To enter lockout function setting, press master password and follow by “05”. Press “0” to disable lockout function and press “1” to enable the function. When lockout function is enabled and operation mode set to Card and PIN mode, user who keys-in password wrongly for three times will be blocked. In order to reuse the same identity, user has to delete the card and reinstall it again.

3. Card registering function

To register a proximity card, press master password and follow by pressing “06”. User can either register the card by card scanning or keypad entry.

A. Card scanning
After master password granted and enter card registering function, present the proximity card within the reading range. To add another card, just present another new card without exit this function.

B. Keypad entry
After master password granted and enter card registering function, key-in 6-digits proximity card number, follow by card quantity of 1pc, “0001”.

4. Card deleting function

To delete a proximity card, press master password and follow by pressing “07”, a beep sound will be heard once enter the function. User will hear long beep sound after key-in card number or after card scanning.

5. User database clearing function

To clear the whole user database, press master password and follow by pressing “08”. After a long beep sound, the user database has been deleted successfully.

6. Door Parameter Setting

By default, the lock release time is 5 seconds and the door open time is 10 seconds.
A. Lock Release Time
Press master password and follow by pressing “09”. User has to key-in a value from “00” to “60” for lock release time.

B. Door Open Time
Press master password and follow by pressing “10”. User has to key-in a value from “00” to “99” for door open time.

7. Security function
This function is to release the electric locking for permanently during certain occasion. To enable/disable the security function, press master password and follow by pressing “11”. After a short beep sound and the STATUS light turns on, press “1” to enable or press “0” to disable the security function. The lock releases and the STATUS light turns on infinitely until user disables it.

8. Master password setting
To change the master password, press master password and follow by pressing “12”. After a short beep sound and user has to key-in the new password. After a long beep sound, user has to key-in that password again for verification. It will be a long beep sound again to indicate the password changed successfully.

9. User PIN setting
There are 10 sets of user PINs, start from location “13” to “22”. To set the user PIN, press master password and follow by pressing “13” for the first set. After a short beep sound, user has to key-in a new 4-digits user PIN. While press “14” for second user PIN, and so for the rest of the user PIN.

10. User PIN deletion
To delete the user PIN, press master password and follow by pressing “13” for the first set, “14” for second set and so on. After a short beep sound, key-in “0000”.

11. Cold Start
Cold Start is a process to clear database, reset or refresh the program/parameter to initial state. To perform a Cold Start, user need to hold down “*” and “#” together, switch off and on the power supply. Releases both button after user hears the continuous beep sound and switch off the unit again.

NOTE:
Cold Start will erase the whole data entry in the EEPROM! Please be aware when perform it. It is advised to perform this when system is crashed.
1. Using a screwdriver towards the bottom of the reader’s case as shown at A. Then push the screwdriver lightly upward.
2. After loosening the reader’s case, pull the upper case up to release as shown at B.
3. Please select an appropriate position to fit the unit. Then use two screws (C) to tighten the unit to the position drilled.
4. Mount the upper cover back to the unit by pushing the cover toward the unit.