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CP5-RX

User Manual

1. Introduction

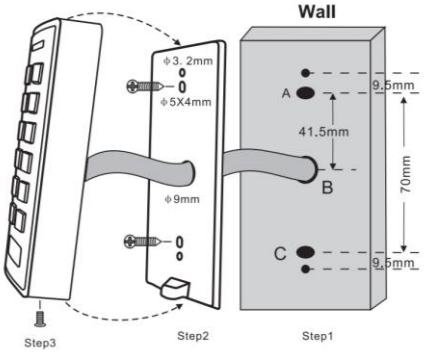
The CP5-RX is a Wiegand output keypad with integrated proximity reader. It can read 125KHz EM & HID cards and 13.56MHz Mifare cards. Because of its IP66 waterproof rating, it can be mounted either indoors or outdoors in harsh environments.

2. Specification

Frequency	125KHz & 13.56MHz
Card type	125KHz – EM & HID cards/fobs 13.56MHz – Mifare cards/fobs (ISO 14443A compatible)
Read range	3-6cm
Standby current	<35mA
Operating voltage	9-18Vdc
Wiegand output format	Wiegand 26-37 bits (Default 26 bits)
Keypad transmission format	4 bits (default), 8 bits or virtual card number
Operating temperature	-40 to +60℃
Operating humidity	0% RH – 95% RH
Housing material	Zinc-alloy
Waterproof rating	IP66
Dimensions	148 x 56 x 22.5mm
Net weight	275g

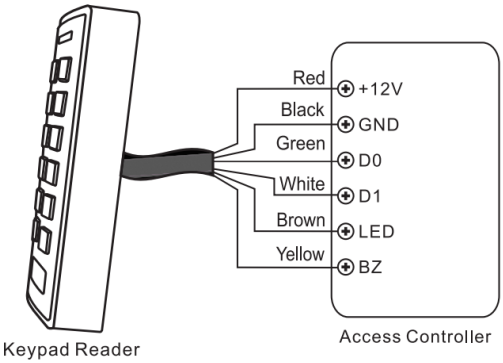
3. Installation

- Drill 2 holes (A, C) for the screws and a larger hole (B) for the cable.
- Knock the wall plugs into the holes A & C.
- Attached the back plate to the wall with the two screws.
- Thread the cable through the cable hole.
- Attach the unit to the back plate using the bottom retaining screw.



4. Wiring

Colour	Function	Notes
Red	Power +V	9-18Vdc
Black	GND	Ground
Green	D0	Wiegand data 0 output
White	D1	Wiegand data 1 output
Brown	LED	Green LED light control
Yellow	BUZZER	Buzzer control



5. Programming

You can change the configuration settings according to your application if required.

Set master code

The 4-6 digit master code is used to prevent unauthorised access to the system. We highly recommend changing the master code and keeping a record of it. Default master code is 123456

1. Enter programming mode	*** Master code #** 123456 is default master code
2. Change master code	**0 New Master code # New Master code #** The master code is any 4-6 digits
3. Exit programming mode	*****

Set Wiegand output format for EM card

1. Enter programming mode	*** Master code #** 123456 is default master code
2. Wiegand input bits	**1 26-37 #** (Factory default is 26 bits)
3. Exit programming mode	*****

Set Wiegand output format for Mifare card

1. Enter programming mode	*** Master code #** 123456 is default master code
2. Wiegand input bits	**2 26-37 #** (Factory default is 26 bits)
3. Exit programming mode	*****

Set PIN output format

1. Enter programming mode	*** Master code #** 123456 is default master code
2. Wiegand input bits	**3 0-2 #** 0 = Virtual card number output 1 = 4 bit output (default) 2 = 8 bit output
3. Exit programming mode	*****

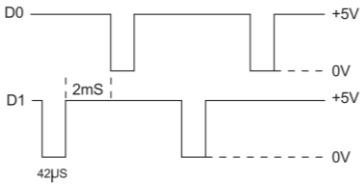
Reset to factory default

Power off the device. Press * and power on. Hold the * button for 3 seconds, then release it.
Note: During the process there will be no change of LED and no beeps.

6. Data Signal

The below table shows the wave form of pulse width time (the duration of a pulse) and pulse interval time (the time between pulses) of the Wiegand data output from the reader.
(Example 1010)

Pulse Times	
Description	Typical Time
Pulse Width Time	42 μs
Pulse Interval Time	2 ms



7. Keypad transmission format

Virtual card number
The reader will transmit the PIN data when it receives the last key (#) after PIN code.
Example PIN code: 999999
Press 999999#, then the output format will be: 0000999999

4 bits
The reader will transmit the PIN data after every key is pressed:
1 (0001), 2 (0010), 3 (0011), 4 (0100), 5 (0101), 6 (0110), 7 (0111), 8 (1000), 9 (1001), * (1010), 0 (0000), # (1011)

8 bits
The reader will transmit the PIN data after every key is pressed:
1 (1110 0001), 2 (1101 0010), 3 (1100 0011), 4 (1011 0100), 5 (1010 0101), 6 (1001 0110), 7 (1000 0111), 8 (0111 1000), 9 (0110 1001), * (0101 1010), 0 (1111 0000), # (0100 1011)