Quantek CP5-RX Versatile 3 in 1 Wiegand Proximity Reader and Keypad Instruction Manual

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Introduction

It is a waterproof Wiegand output keypad, with integrated proximity reader, that can be mounted either indoors or outdoors in harsh environments.

Four versions are available:

- **EM version:** read 125KHz EM card only
- **EM+HID version:** can read both 125KHz EM and HID cards
- **Mifare version:** can read 13.56MHz Mifare card
- **EM+HID+Mifare version:** can read 125KHz EM+ 125KHz HID+ 13.56MHz Mifare cards

Features

- Waterproof, conforms to IP66
- **Programmable Wiegand output:** 26-44, 56, 58 bits
- **Programmable Keypad Transmission:** 4bits, Bbits or virtual card number format
- **Card type:** EM card or EM+HID cards or Mifare card, or EM+HID+Mifare cards
- **Reading range:** 3~8cm
- External LED Control & External Buzzer Control

Specification

Version	**EM**	**EM+ HID**	Mifare	EM+ HID + Mifare
Frequency	125KHz	125KHz	13.56MHz	125KHz & 13.56 MHz

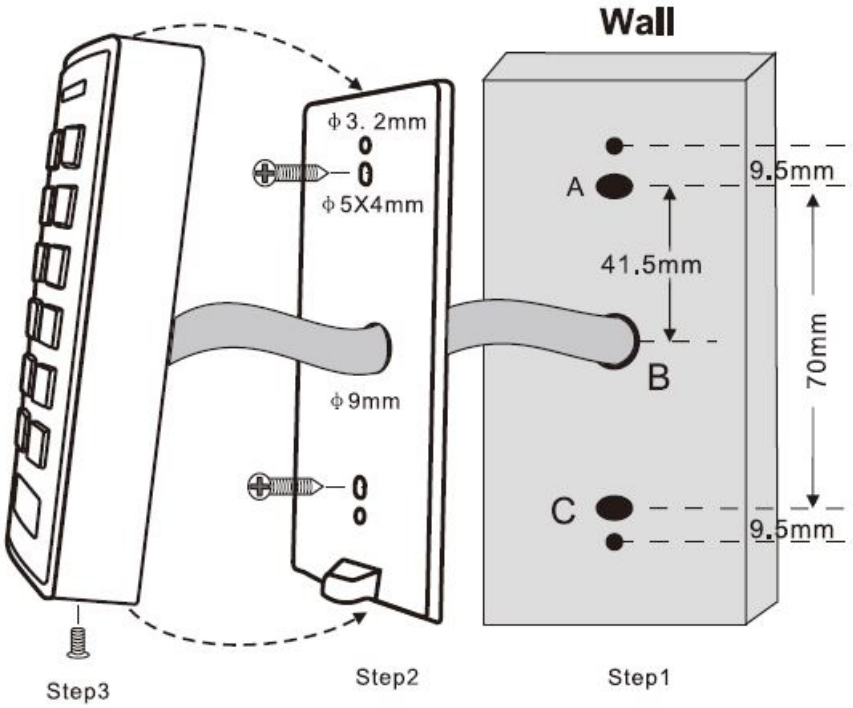
Card Type	125KHz EM Card	12 I H a & 	13.56MHz Milare Card	125KHz EM&HID Cards & 13.56MHz Milare Card
Read Range	3-8cm			
Standby Current	S35mA			
Operating Voltage	9~18VDC			
Wiegand Output Format	Wiegand 26-44, 56, 58 bits output (Factory default: 26bits for EM card, 34bits for Mifare card, Auto output for HID card)			
Keypad Transmission Format	4bits (factory default) 8bits or virtual card number format can be set			
Operating Temperature	-40°(-60°(			
Operating Humidity	0%RH-95%RH			
Physical	ABS, Metal optional			
Color	ABS: Black/Ivory		Metal: Silver	
Index of Protection	IP66			
Dimension	ABS: L122 **x** W50 x D21 mm		Metal: L148 **x** W56 x D22.5 mm	
Net Weight	ABS: 155g		Metal: 450g	
Shipment Weight	ABS:210g		Metal:500g	

Installation

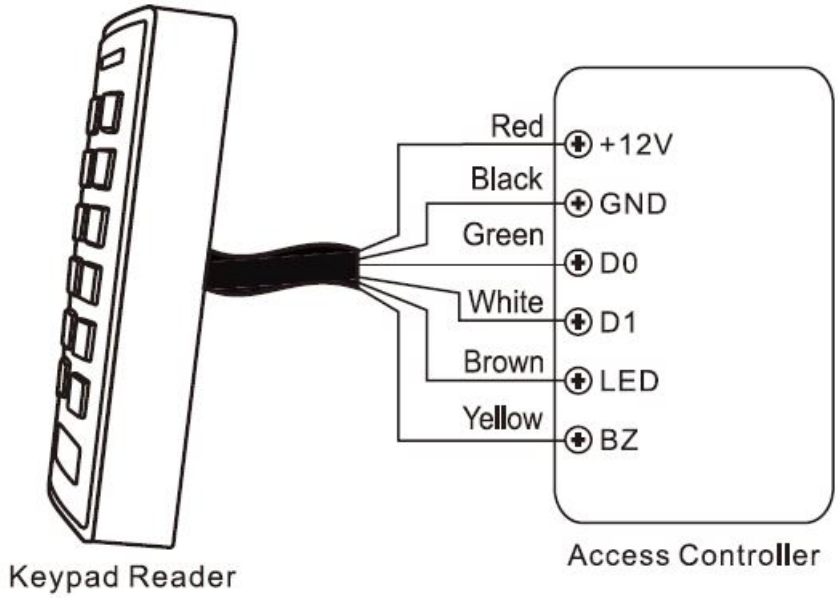
- Drill 2 holes (A, C) on the wall for the screws and one hole (B) for the cable
- Knock the rubber bungs to the holes (A, C)
- Fix the back cover on the wall with 2 screws
- Thread the cable through the cable hole (B)
- Attach the unit to the back cover

Wiring

Color	Function	Notes
Red	Power +	9-18V DC Power Input
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



Connection Diagram



Programming

Change the configure settings according to your application (optional). Multiple configuration settings can be changed at one time: enter program mode, change desired settings, then exit program mode.

Set M aster Code
The 4-6 digits Master Code is used to prevent unauthorized access to the system. To interface with the keypad reader, the manager will need a Master Code (factory default code: 1 2 3 456), we highly recommend immediately updating it and recording the New Master Code.

Note:
When entering program mode, please press* for 5 seconds, and then press Master Code #.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)#
2. Update Master Code	O (New Master Code)# (Repeat New Master Code)#
3. Exit	

Packing List

Name	Quantity
Keypad Reader	1
Manual	1
Wall Fixing Plugs	2
Self Tapping Screws	2

Set Wiegand output format for EM Card

Programming Step	Keystroke Combination
1. Enter Program Mode	* **(Master Code) #**
2. Format Setting	1 (26~44) # (Factory default is 26bits)
3. Exit	*

Set Wiegand output format for HID Card

Programming Step	**Keystroke Combination**
1. Enter Program Mode	* (Master Code)#
2. Format Setting	2(0)# (Auto output, factory default) 2 (26-37) #
3. Exit	

Set Wiegand output format for Mifare Card

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)#
2. Format Setting	3 (0) # (Auto output) 3 (26-44, 56, 58) # (Factory default is 34bits)
3. Exit	

Set PIN output format
The keypad reader can be set to 4 bits (factory default), 8 bits, or virtual card number format.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)#
2. Format Setting Virtual Card Number	4 (0)#
4Bits	4 (4)#
BBits	4 (8)#
3. Exit	

Set Audible and Visual Response

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)#
2. LED Always ON	5 (1) # (Factory default)
LED Always OFF	5(2)#
OR 2. Enable Sound	5 (3) # (Factory default)
Disable Sound	5(4)#
OR	
Keypad Backlit Always	5 (5) # (Factory default)
ON	
Keypad Backlit	5(6)#
Automatic OFF	
	Automatic OFF after 20
	seconds, it will go ON by
	pressing any key (this key
	isn’t taken into consideration)
3. Exit	

Reset to Factory Default:
There are two methods to reset the device to factory default.

Method 1:
(Master Code)# 5(0) #

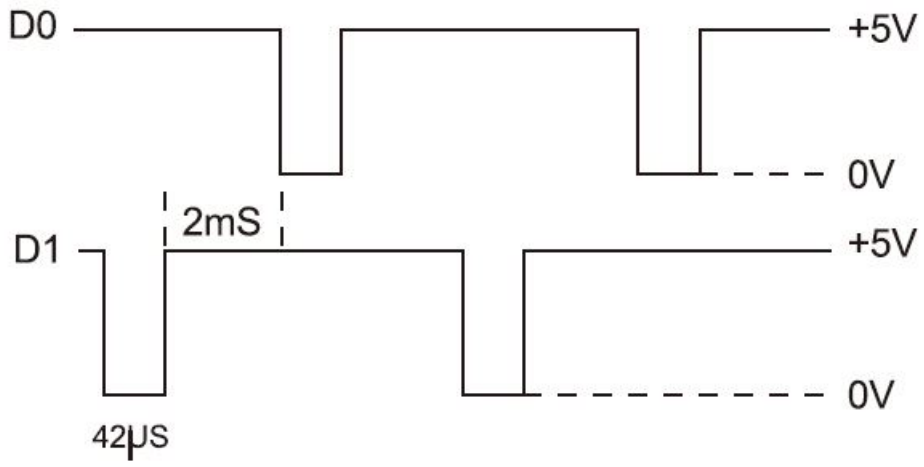
Method 2
(This way is suitable for users who forget the Master Code):

Power off, connect the Yellow cable and GND cable, and then power on, hold it for 5 seconds, there will be a long beep, which means reset to factory default successfully.

Data Signal

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

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



Keypad Transmission Format

The default keypad transmission format is 4 bits, 8 bits or virtual card number format can be set.

Virtual Card Number
The reader will transmit the PIN data when it receives the last key(#) after the PIN code

Example: PIN code: 999999 Press 999999 #, then the output format will be: 0000999999

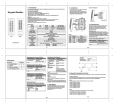
4 bits
The reader will transmit the PIN data after every key is pressed:

- 1 (0001),2(0010),3(0011)
- 4 (0100), 5 (0101), 6 (0110)
- 7 (0111), 8 (1000),9 (1001)
- * (1010), 0 (0000), # (1011)
- 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)

Documents / Resources

	Quantek CP5-RX Versatile 3 in 1 Wiegand Proximity Reader and Keypad [pdf] Instruction Manual CP5-RX Versatile 3 in 1 Wiegand Proximity Reader and Keypad, CP5-RX, Versatile 3 in 1 Wieg and Proximity Reader and Keypad, Proximity Reader and Keypad, Reader and Keypad