

User Manual

MR1010 & MR1020

Version: 1.0

1. Introduction

The devices are advances access control readers with 125KHz&13.56MHz RFID technology. It's an ideal choice for high-security applications. They are attractively designed with IK10 certification which brings better protection.

The readers are very powerful, can read many types of cards as below:

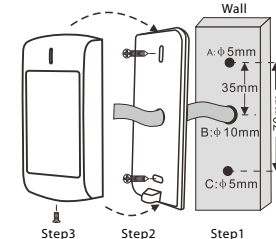
Frequency	Card Type
125KHz	EM Cards
13.56MHz	RFID S50/S70 IC Cards

2. Specifications

Operation Voltage	9~24V DC
Standby Current	≤50mA
Frequency	125KHz & 13.56MHz
Card Type	EM & IC
Read Range	2~6 cm
Output Format	Wiegand 26~58 Bits
Operating Temperature	-40°C~+60°C (-40°F~140°F)
Operating Humidity	0%~98% RH
Color	Silver
Index of Protection	IK10 and IP66
Dimension	L105 x W49 x H21 (mm)
Net Weight	240g
Shipping Weight	270g

3. Installation

- Drill 2 holes (A, C) on the wall for the screws and one hole 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



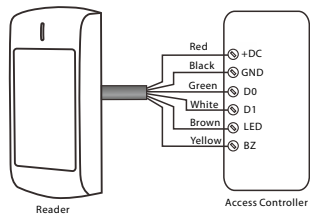
4. Wiring

Color	Function	Notes
Red	Power	9~24V DC
Black	GND	Ground
Green	D0	Data 0
White	D1	Data 1
Brown	LED	Green LED Light Control
Yellow	Buzzer	Buzzer Control

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5. Connection



6. Programming

The readers are equipped with an IR remote control, users can use it to program the Wiegand output format if needed.

6.1 Enter and Exit Program Mode

Programming Step	Keystroke Combination
1. Enter Program Mode	*(Master Code)# (Factory default is 123456)
2. Exit Program Mode	*

Note: Master Code can not be changed.

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6.2 Set Wiegand Format for EM Cards

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

6.3 Set Wiegand Format for IC Cards

Programming Step	Keystroke Combination
1. Enter Program Mode	*(Master Code)#
2. Set Wiegand Format	3 (26~44, 56, 58) # (Factory default is Wiegand 34 bits)
OR	
2. Recognize Card Format Automatically (4byte card output WG34, 7byte card output WG58)	3 0 # (Apply for WG34 and WG58 only)
3. Exit Program Mode	*

Note: WG56 is without parity bits, WG58 is with parity bits.

6.4 Reset to Factory Default

Programming Step	Keystroke Combination
1. Enter Program Mode	*(Master Code)#
2. Reset to Factory Default	5 0 #
3. Exit Program Mode	*

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7. Function Table Sheet

Read Card	The LED light will turn into Green, and the buzzer sounds a beep, at the meantime, the reader outputs the Wiegand signal
External LED Control	When the input voltage for LED is low, the LED will turn into Green
External Buzzer Control	When the input voltage for Buzzer is low, the buzzer will sound
Wiegand Data Output	The Wiegand output is 26~58 bits

8. Packing List

Name	Quantity
Reader	1
Manual	1
IR Remote Control	1
Screw Driver	1
Wall Fixing Plugs	2
Self Tapping Screws	2

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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