RFID reader S9-R MF

Metal Wiegand Reader

User Manual

1. Introduction

The reader is a metal case anti-vandal proximity reader, because of waterproof, it can be mounted either indoor or outdoor in harsh environments.
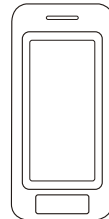
Model	Card Type
EM version	Read 125KHz EM card
Mifare version	Read 13.56MHz Mifare card (ISO14443A Compatible) 4 bytes or 7 bytes auto recognize
HID+EM version	Read 125KHz HID & EM cards
EM+HID+ MF version	Read 125KHz HID, EM cards & 13.56MHz Mifare card (ISO14443A Compatible) For Mifare card: 4 bytes or 7 bytes auto recognize

For Mifare reader, it supports to read 13.56MHz NXP Mifare, Mifare Plus, DesFire, Mifare Pro, Mifare UltraLight, Mifare Class 4K cards.

2. Specifications

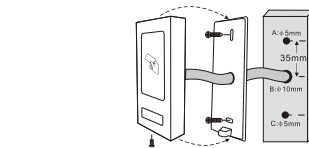| Version	EM	Mifare	EM+HID	EM+HID+Mifare
Operating Voltage	9~18V DC			
Frequency	125KHz	13.56MHz	125KHz	125KHz&13.56MHz
Reading Distance	≥ 3 CM			
Output Format	WG 26 bits	WG 34 bits / 58 bits	WG 26~37 bits (Default: 26 bits)	EM: WG 26 bits / MF: WG 34/58bits / HID: Auto Recognize
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)			
Standby Current	< 25mA			
Operating Humidity	10%~98% RH			
Index of Protection	IP66			

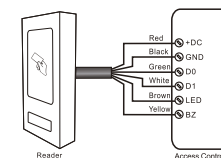## Dimensions

L105xW50xH19(mm)

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 though the cable hole (B)
- Attach the unit to the back cover

A:∅5mm
35mm
B:∅10mm
70mm
C:∅5mm

4. Functions Table Sheet

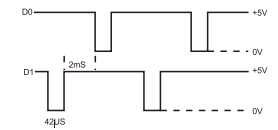|	
Read Card	The LED light will turn into Green, and the buzzer sounds a beep, at the meantime, the reader outputs the Wiegand signal
External LED Control	When the input voltage for LED is low, the LED will turn into Green
External Buzzer Control	When the input voltage for Buzzer is low, the Buzzer will sound
Wiegand Data Output	HID card can output Wiegand 26~37 bits automatically; Mifare card can output Wiegand 34/58 bits automatically; EM card can output Wiegand 26 bits

Connection Diagram

Red — +DC
Black — GND
Green — D0
White — D1
Brown — LED
Yellow — BZ

Reader   Access Controller

Wiring

Color	Function	Notes
Red	Power	+DC (9~18V DC)
Black	GND	Ground
Green	D0	Data 0
White	D1	Data 1
Brown	LED	Green LED Light Control
Yellow	Buzzer	Buzzer Control

(Remarks: Brown and Yellow wires are optional connections)

5. Data Signal

Description	Reader Typical Time
Pulse Width Time	42 μS
Pulse Interval Time	2 mS

The above 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 readers. (Example 1010)

D0   +5V
            0V
D1   2mS   +5V
            0V
42μS

6. Packing List

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