

# BF-50

V1.5

## INSTALLATION HW 3.0

### A. Package Content

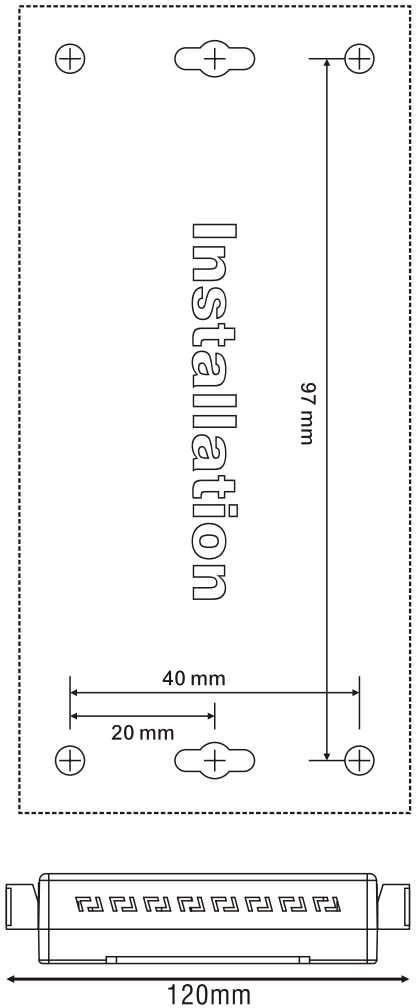
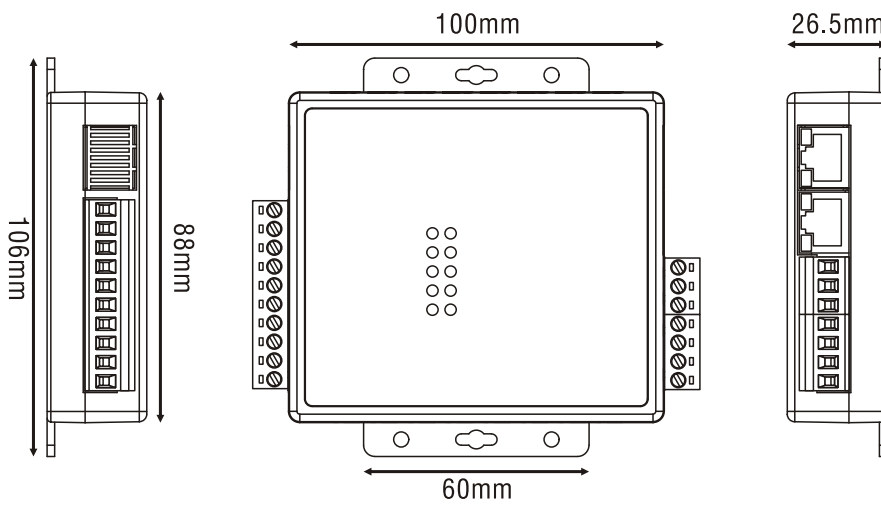
Relay box x 1, RJ45 cable x 2, installation guide x 1, kit pack x 1  
 Kit pack : screw x 4, screw anchors x 4, diode (1N4004) x 1

### B. Specification

- Dimension : 100 x 106 x 26.5 mm
- Voltage range : 9 ~ 24 VDC
- Recommend power : 600mA ~ 1000mA
- Wiegand range : Max 100M
- RS485 range : Max 1000M
- Relay supports max 30VDC 3A  
 (AC POWER does not support)

### Recommend

- DC power supply
- RVSP shielded twisted pair RS485 cable
- Separate power source for relay box and magnetic lock

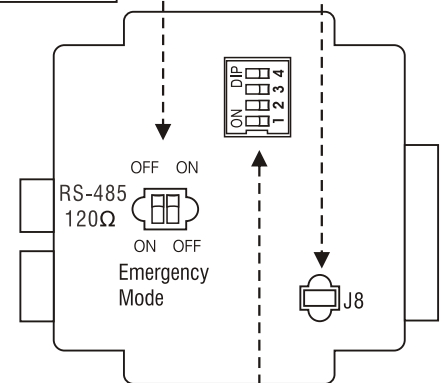
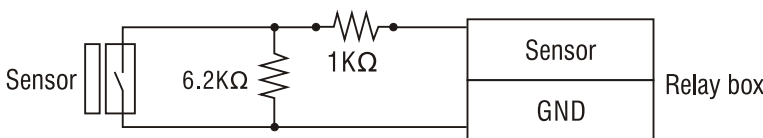


### C. Short-Circuit Plate Status Description

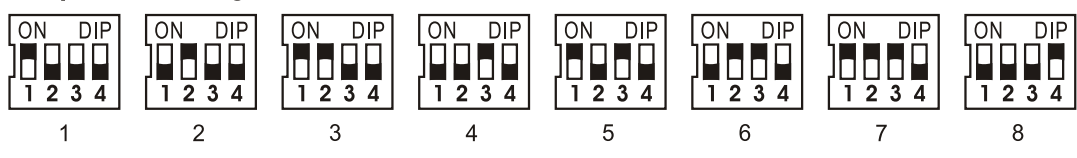
<b>Jumps J8</b>	Buzzer switch		
		Short: enable (default)	Open: disable
<b>Emergency Mode</b>	When RS485 disconnected, exit button can still function without controller's verification	Enable (default) ON	Disable OFF
<b>RS485 120Ω</b>	Enable/Disable build in 120Ω resistor for furthest relay box	Disable (default) OFF	Enable ON

#### ➤ Relay box sensor detection function (Support SEMAC S series control panel only)

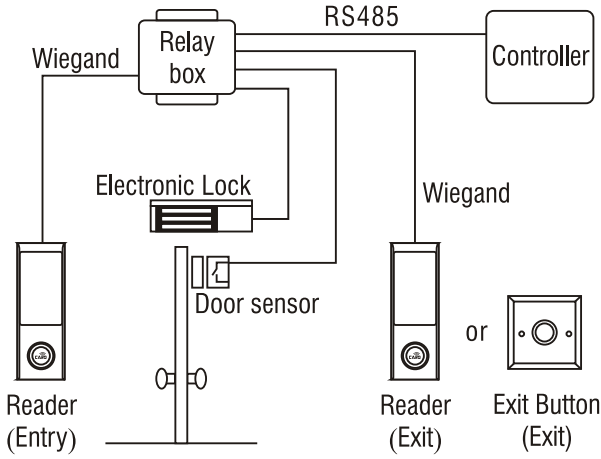
1. Enable sensor detection → log into controller's webserver → door setup → door sensor mode → select circuit close/open
2. When enable detection function, must connect 1KΩ and 6.2KΩ resistors. Diagram as below :



#### ➤ Dip switch Setting



## D. Structure

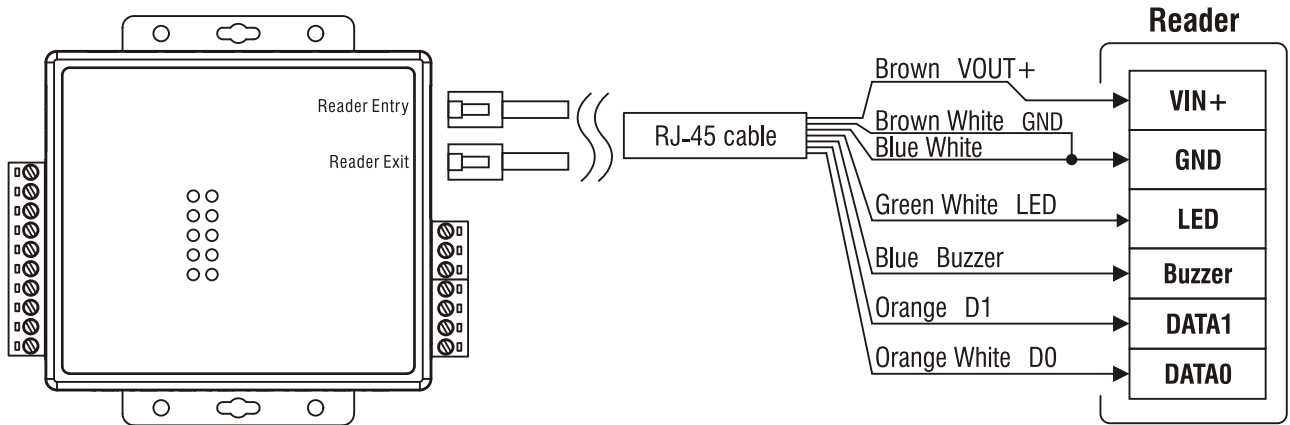


## RJ45 and Wiegand Reader Wire Description

Wiegand range Max 100M

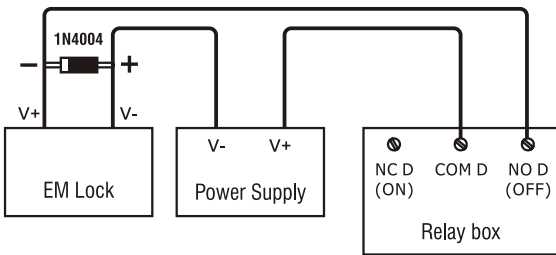
1	Orange White	DATA 0	
2	Orange	DATA 1	
3	Green White	Output, Control Reader LED	
4	Blue	Output, Control Reader Buzzer	
5	Blue White	Reader Sensing Control ( Must short GND)	
6	Green	Retention	
7	Brown White	GND	DC 9-24V Power Output, Same as Relay box Power Input.
8	Brown	VOUT+	

## E. RJ45 & Wiegand Reader Connection

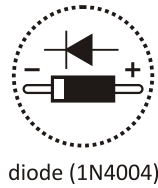
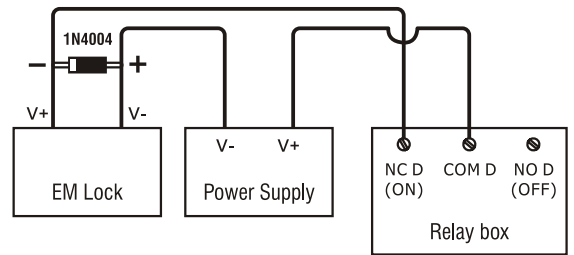


## ⊗ Electronic lock and door relay connection

### • Electronic Fail Secure mode



### • Electronic Fail Safe mode



## F. Connection Diagram

