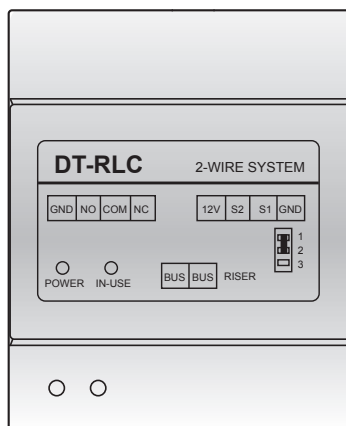


# DT-RLC

Lock/Light Control Interface

## User Manual



Please read this manual carefully before using the product you purchase, and keep it well for future use. We reserve the right to modify the specification in this manual at any time without notice.

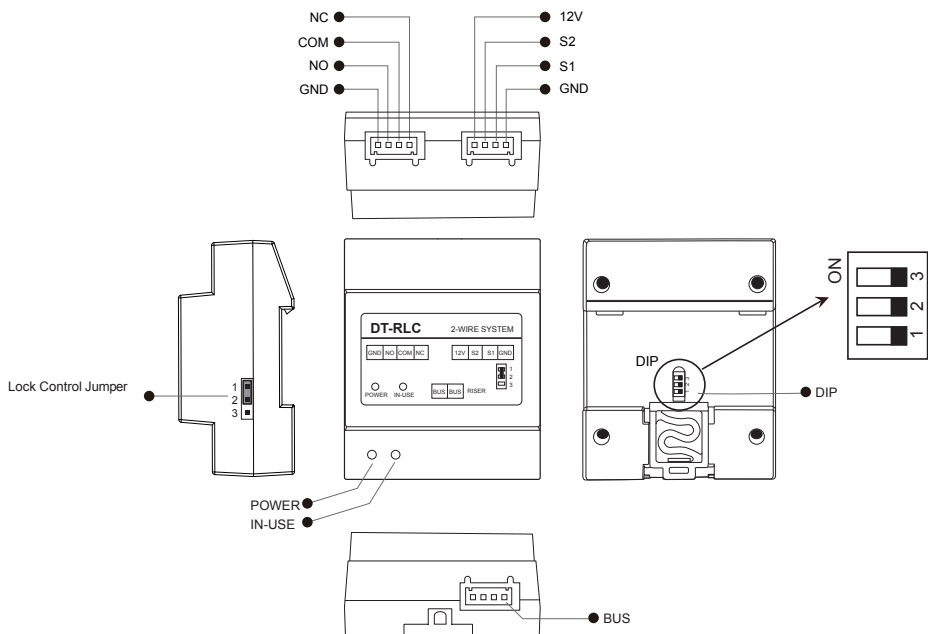
## 1.About DT-RLC Interface

### Description:

The relay actuator DT-RLC is an accessory device designed for DT system to control door locks and/or light. It has following features:

- Two work modes: lock control mode and light control mode;
- Allows to open gate door locks or control lights;
- Support high power-consumption lock;
- Configurable unlock timed output or light control timed output;
- Support Exit Button: when in lock control mode, the exit button operating the lock; when in light control mode, the exit button operating the light

## 2. Parts



+12V: 12V power output. Can be used to power Power-on-to-Open Electric lock max holding current 450mA

S2: Reserved

S1: Exit button contact. Short S1 and GND to unlock or control light

GND: The common Ground of the other 3 contacts: S1, S2 and +12V

NC:The normally-closed contact to COM

COM: The common contact of the unlock/light relay

NO: The normally-open contact to COM

Lock Control Jumper: To select the lock type: see section 5.3, 5.4

POWER:Working indicator, it will light up when powered

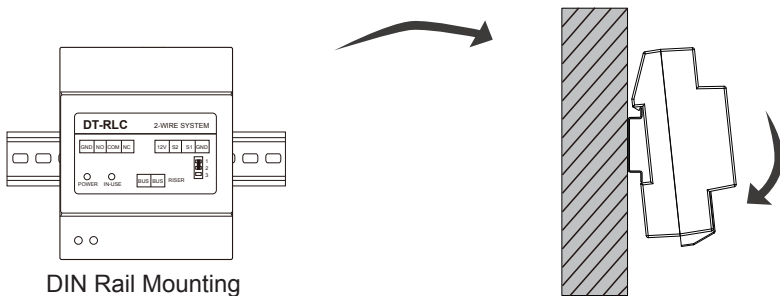
IN USE:Unlock/light indicator, lights up when unlock or turn on the light

Bus:Connect to the bus line, no polarity

DIP :Used for setting the address of the RLC

### 3. Unit Mounting

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### 4. How To Set The Work Mode

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#### Factory default is Lock Control Mode

1).Set DIP1 = ON, DIP2 = ON, DIP3 = OFF, Short S1 and GND and DT-RLC will go into the setting mode;

2).Struck repeatedly DIP1 4x times to switch work modes:

A. IN-USE indicator flashes once - means Interface in the light control mode

B. IN-USE indicator flashes two times - means Interface in the lock control mode

3).When the setting complete it will restart automatically

Please note the setting state valid within 5 seconds. If more than 5 seconds without any action taken setting mode exits automatically

## 5. Lock Control Mode

In lock control mode, the DT-RLC allows to open gate door locks; Support high power-consumption lock; With configurable unlock timed output; Support Exit Button






### 5.1 How to set the unlock time




In lock control mode:

- 1). Power-on and within 5 seconds, short-circuit GND and S2 until IN-USE indicator flashes
- 2). Short-circuit GND and S1 until IN-USE indicator lights up
- 3). Short-circuit GND and S2 and start counting flashes. IN-USE indicator flashes once per second. The maximum unlocking time is 30 seconds
- 4). When desired time reached, remove short-circuit. Time will be saved automatically

### 5.2 DIP switches settings for lock

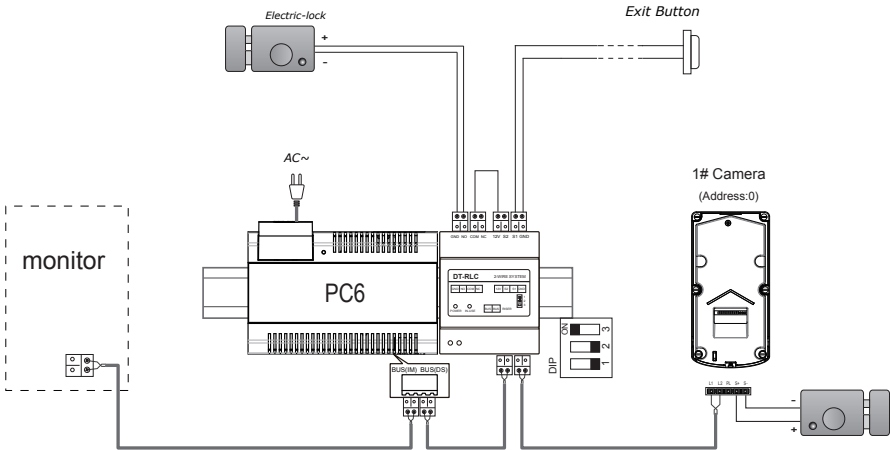
The DIP switches at the back are used to set the address of the RLC.  
Please refer to the following tables:

DIP	DIP State	Descriptions
	OFF,OFF,OFF	Applies to door station 1 & lock 1
	OFF,OFF,ON	Applies to door station 1 & lock 2
	ON,OFF,OFF	Applies to door station 2 & lock 1
	ON,OFF,ON	Applies to door station 2 & lock 2
	OFF,ON,OFF	Applies to door station 3 & lock 1

DIP	DIP State	Descriptions
	OFF,ON,ON	Applies to door station 3 & lock 2
	ON,ON,OFF	Applies to door station 4 & lock 1
	ON,ON,ON	Applies to door station 4 & lock 2

### 5.3 Lock 2 powered by RLC (only for Power-on-to-Open lock) maximum holding current is 450mA

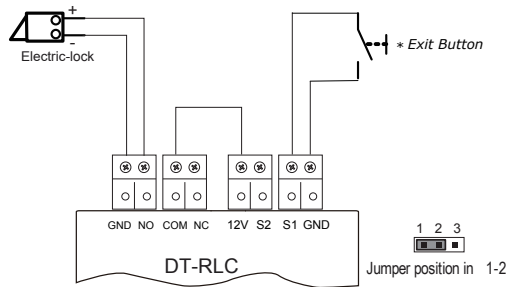
DT-RLC controls the second lock (Electric) of door station 1



## Close-up Connection

Note:

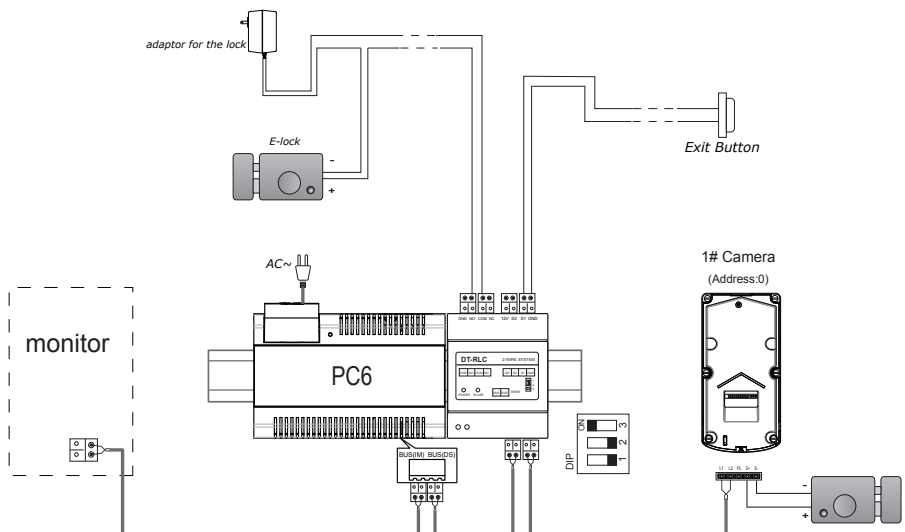
1. When Electric lock connected, the jumper position in 1-2
2. When E-magnetic lock connected, the jumper position in 2-3



## 5.4 Lock Powered with extra Power supply

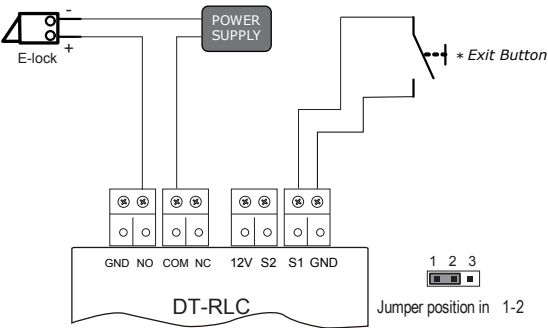
A. Power-on-to-Open:

DT-RLC controls the second lock (Electric) of door station 1



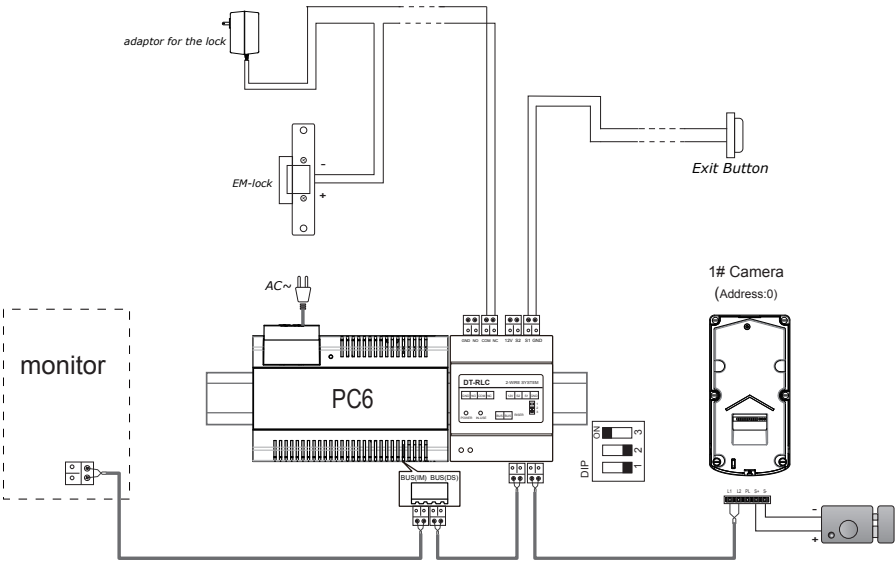
Close-up Connection

1. Electric Lock



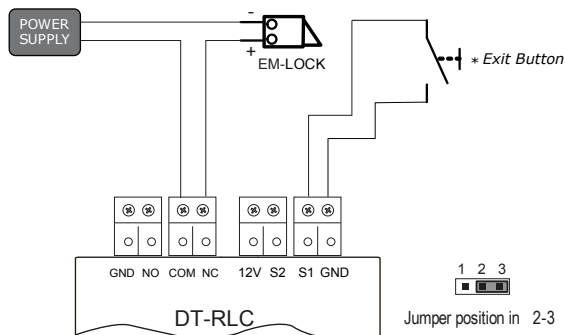
B.Power-off-to-Open:

DT-RLC controls the second lock (magnetic) of door station 1



## Close-up Connection

### 1. Magnetic Lock



## 6. Light Control Mode

In light control mode, the DT-RLC allows to control lights with configurable time output; Support Exit Button

### 6.1 How to set the light working time








In light control mode:

- 1). Power-on and within 5 seconds, short-circuit GND and S2 until IN-USE indicator flashes
- 2). Short-circuit GND and S1 until IN-USE indicator lights up
- 3). Short-circuit GND and S2 and start counting flashes. IN-USE indicator flashes once per second= equals 30 sec of light On. The maximum time light can stay On is 900 sec
- 4). When desired time reached, remove short-circuit. Time will be saved automatically

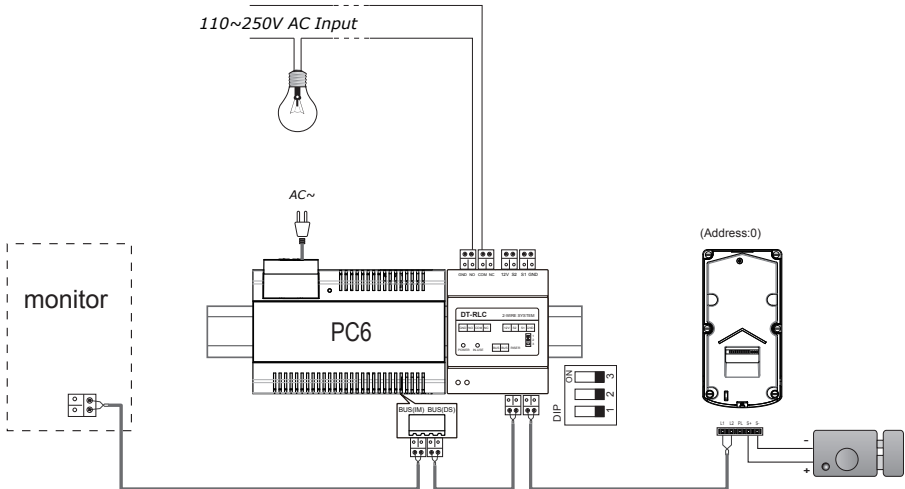
### 6.2 DIP switches settings for light

DIP	Bit State	Descriptions
	OFF,OFF,OFF	Set for the first DT-RLC



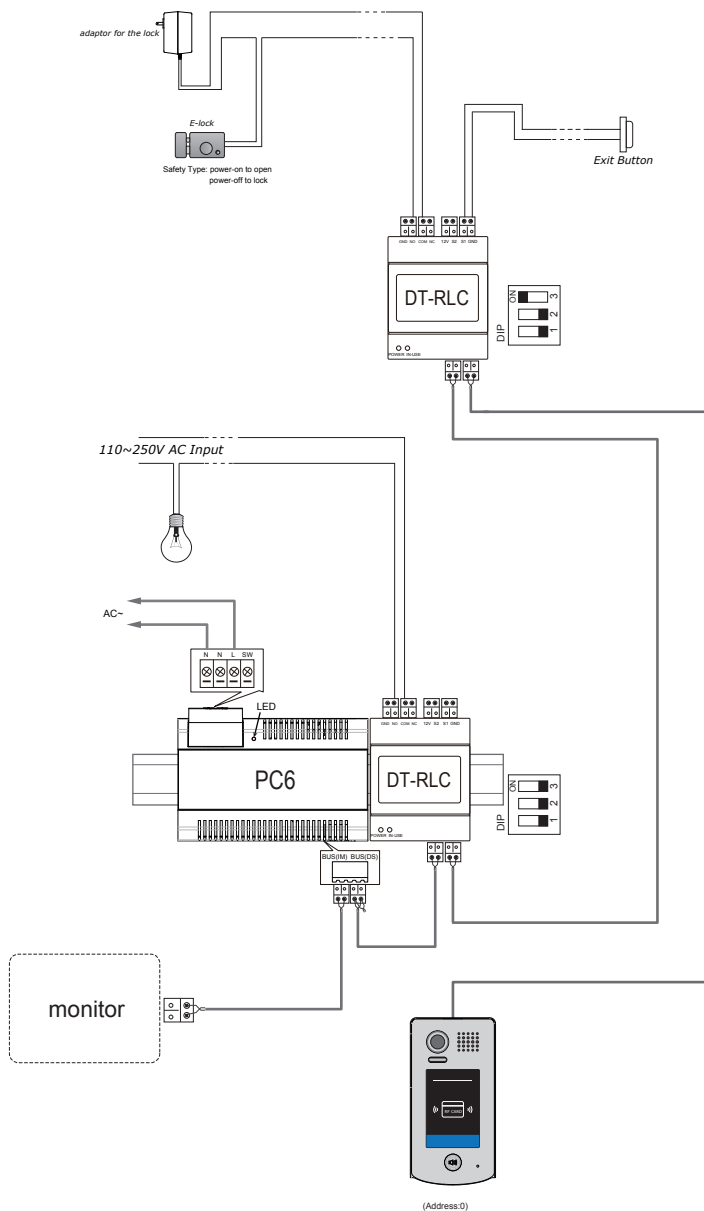
DIP	Bit State	Descriptions
	OFF,OFF,ON	Set for the second DT-RLC
	ON,OFF,OFF	Set for the third DT-RLC
	ON,OFF,ON	Set for the fourth DT-RLC
	OFF,ON,OFF	Set for the fifth DT-RLC
	OFF,ON,ON	Set for the sixth DT-RLC
	ON,ON,OFF	Set for the seventh DT-RLC
	ON,ON,ON	Set for the eighth DT-RLC

### 6.3 DT-RLC Connection for Light Control



## 7. Connecting 2 DT-RLCs

In one system, you can connect a DT-RLC to control gate door lock, and connect another DT-RLC to control light



## 8. Specifications

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- Power Supply : DC24V
- Unlocking Time: 1~30s (Default 1s)
- Lock Power supply: 12Vdc, 450mA (Internal Power)
- Working Temperature: -10<sup>o</sup>C~+40<sup>o</sup>C
- Dimension: H89×W71×D45mm

The design and specifications can be changed without notice to the user. Right to interpret and copyright of this manual are preserved.