



KRC2104 & KRC2104-W Dry Contact Controller Product Common Specification

1 Product Description

Note: Wi-Fi, Tuya APP control and voice control content is only available for the KRC2104-W version.

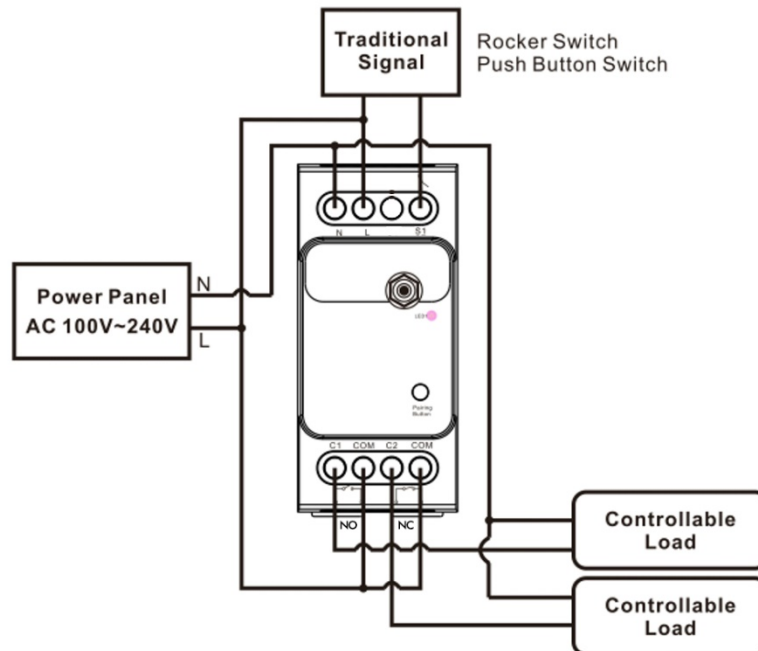
1.1 Product Introduction

KRC2104-W Dry Contact Rail Controller supports Wi-Fi 2.4G and RF 433MHz, which can be controlled by Tuya App and wireless kinetic switch, the maximum current can reach 16A. It reserves the input terminals for traditional switches, and can be controlled by the original traditional switches. It is mounted in the rail of distribution box. Through the smart speaker, it can achieve ON/OFF by voice control. (Smart speakers like Google Assistant, Amazon Alexa).

2 Technical Parameters

Project	Parameters
Product Model	KRC2104 / KRC2104-W
Power Supply	AC100V -240V 50/60Hz
Output	2x Independent Dry Realay OUT 1x NO and 1x NC, max.2 x 16A
Operational Current	16A
Radio Frequency	KRC2104: RF 433MHz KRC2104-W: Wi-Fi 2.4G & RF 433MHz
Operate Range	80m (Outdoors), 25m(Indoors)
Standby Power Consumption	< 1W
Storage Capacity	Up to 10 wireless kinetic switches info
Wiring Method	Terminals
Installation Method	DIN Rail
Dimensions	L36*W77*H67mm
RF Receive Sensitivity	-110dBm
Operational Temperature	-20°C ~ +55°C
IP Rating	IP20
Certifications and standards	EN60669-1:2018 EN IEC55015:2019

3 Wiring Diagram



4 Product Features

4.1 Inching Mode

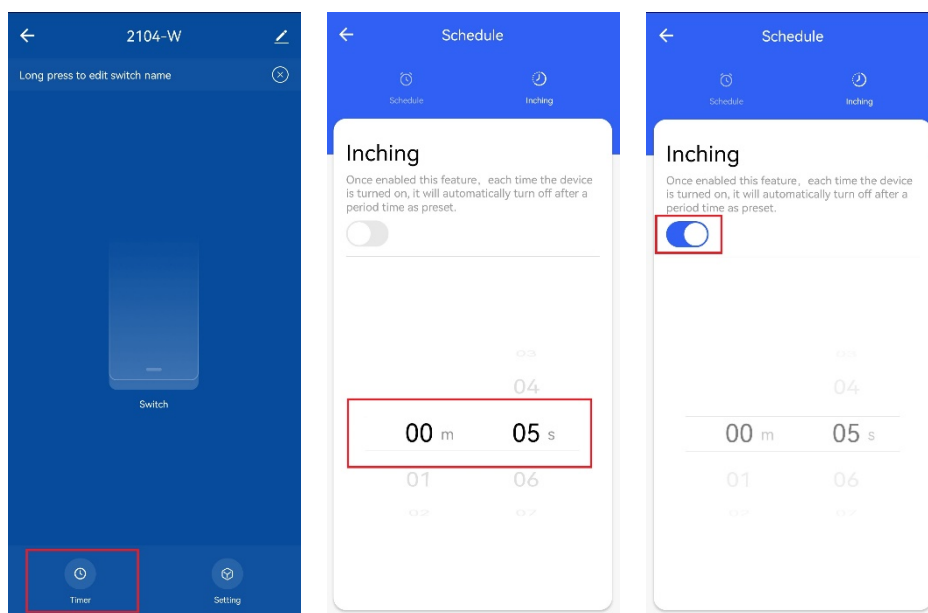
After enabled the inching feature, each time the device is turned on, it will automatically turn off after a period time as preset.

Note:

KRC2104 can be order:

- with factory disabled inching mode (default).
- with factory inching mode fixed setting of 1s to 255s

4.1.1 Tuya APP



The KRC2104-W can turn on the inching mode through Tuya APP and set the inching time, the time setting range is 1-3600s.

4.1.2 When Inching Mode ON

4.1.2.1 Pair with One-button Switch

Each time the kinetic switch is pressed it should reset the timing of the inching mode instead of turning off the controller.

4.1.2.2 Pair with Dual-button Switch

Ordinary pairing automatically pairs the two buttons directionally, so right button always resets the timing of the inching mode and the left button turns off the controller.

4.1.3 When Inching Mode OFF

4.1.3.1 Ordinary Pairing

Regardless of how many buttons are on the switch, after ordinary pairing the first press of the paired button turns on the controller and the second press turns off the controller.

4.1.3.2 Directional Pairing

Switches with two or more buttons after directional pairing, the left button turns off the controller, the right button turn on the controller.

4.2 Network Method (only for KRC2104-W)

After the Receiver is powered on, it enters the network configuration (EZ mode) by default, and the LED light flashes quickly (2 flashes per second). If LED light is not in right state, need to reset the device to enter the network configuration mode, follow the steps below: Press the button for 10 seconds, then release the button after the light is still, and when the LED light is flashing quickly, it means that it enters the network configuration state. After entering the network configuration mode, it can add devices through the App of "Tuya Smart" or " Kinetic Switch". After the device is successfully added, it can achieve ON/OFF by App control.

If the controller network cannot be configured successfully in "EZ mode", try "AP mode". Follow the steps to switch to the "AP mode": press the button for 10 seconds in "EZ mode" (When LED light flash quickly), then release the button after the light is still, and it can switch to "AP mode". At this time, the light will turn off once every 2 seconds. If need to switch it from "AP mode" back to "EZ mode", press the button for 10 seconds, then release the button after the light is still.

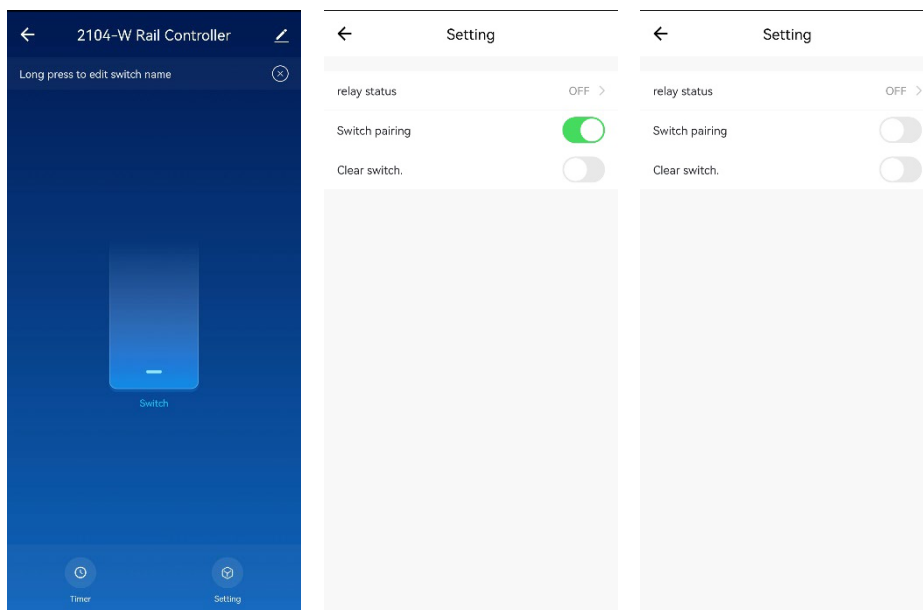
4.3 Pairing Method

There are two pairing methods for pairing with the receiver and the wireless kinetic switch: Ordinary pairing and Directional pairing.

4.3.1 Ordinary Pairing

4.3.1.1 App Method (only for KRC2104-W)

Enter the App page, click "Setting" -> "Switch Pairing", and slide the paired slider to the right, then press the button of the switch that need to be paired once, and the paired slider returns to its position, indicating successful pairing.



4.3.1.2 Physical button Mode

Press the pairing button of the receiver for 3 seconds, the light will enter a slow flashing state, the receiver enters the status of "waiting for pairing". At this time, press the button of the wireless switch that needs to be paired once, and the light is off, it means that the pairing is completed.

4.3.1.3 Through wired switch

Within 2 minutes after the controller is powered on press quickly the wired switch for 5 times within 2 seconds, and the output load is switched ON/OFF repeatedly. Then the receiver enters the pairing mode. At this time, press the button of the wireless kinetic switch once, and the load stops ON/OFF, it means that the pairing is completed. After controller is powered on more than 2 minutes, the pair mode cannot be triggered by the wired switch.

4.3.2 Directional Pairing

In order to meet the user's habit of using traditional switches, and to ensure the synchronization of the states of multiple wireless receivers in one-control-multiple mode, the directional pairing is defined. This pairing method only supports double-buttons, four-button or six-buttons rebound switches. The pairing methods are as follows:

4.3.2.1 App Method (only for KRC2104-W)

Enter the App page, click "Setting" -> "Switch Pairing", and slide the paired slider to the right, then press the button of the switch that need to be paired four time within 1 second, and the paired slider returns to its position, indicating successful pairing.

4.3.2.2 Physical button Mode

Press the pairing button of the receiver for 3 seconds, the light will enter a slow flashing state, the receiver enters the status of "waiting for pairing". At this time, press the button of the wireless switch that needs to be paired four time within 1 second, and the light is off, it means that the pairing is completed.

4.3.2.3 Through wired switch

Within 2 minutes after the controller is powered on, press quickly the wired switch for 5 times within 2 seconds, and the output load is switched ON/OFF repeatedly. Then the receiver enters the pairing mode. At this time, press the button of the wireless kinetic switch four times within 1 second and the load stops ON/OFF, it means that the pairing is completed.

4.3.3 Special Switch Pairing

4.3.3.1 Pairing with Door Magnet

The door magnet can be paired into two control modes.

- (1) Open door open mode: after the controller enters the pairing, the door magnet will be pressed down (i.e., close the door after installation), the pairing will be closed by pressing down (close the door), and opened by popping up (open the door), and this mode is mostly used for light control.
- (2) Close door open mode: after the controller enters the pairing, the door magnet will pop up (i.e. open the door after installation), pairing into the press (close the door) to open, pop up (open the door) to close, this mode is mostly used for air conditioning, electric heater and other control.

The controller can be paired with more than one door magnet to use, when paired with more than one door magnet, the first door magnet's paired control mode shall prevail.

For door magnets in open door open mode, the controller will turn on as long as one door magnet is in the pop-up state (open door state), and the receiver will turn off after all door magnets are closed.

For door magnets in close door open mode, the receiver will turn on after all door magnets are closed, and will turn off as long as one door magnet is in the pop-up state.

Note: When the paired controller is turned on inching mode, and turned on by the door magnet, it also performs the inching function and turn off automatically after a preset time.

4.3.3.2 Pairing with Body Sensor

After putting the controller into the pairing state, triggered the human body sensor to complete the pairing. After pairing, the controller will turn on when the human body sensor senses someone, and turn off when no one is there.

The controller can be paired with more than one human body sensor, after pairing, as long as one human body sensor senses someone, the controller will turn on; when all sensors do not sense the human body, the controller will turn off.

Note: When the paired controller is turned on inching mode and triggered by the human body sensor, it also performs the inching function and turn off at the end of the set inching time.

4.4 Cancel Pairing with Wireless Kinetic Switch

4.4.1 App Method (only for KRC2104-W)

Enter the App page, click "Setting" -> "Clear Switch", and slide the clear slider to the right, then the clear slider returns to its position, indicating successful clearing.

4.4.2 Physical button Mode

Press the pairing button of receiver for 12 seconds, the light will flash-still-off, and then release the button, all information for the wireless kinetic switch that matched will be cleared.

4.5 Clear Network (only for KRC2104-W)

4.5.1 App Method

Enter the app device page and select "Remove Device" to clear the device network configuration.

4.5.2 Physical button Mode

Press the button for 10 seconds, the light is flashing to still, and then release the button, LED will flash quickly, and the devices will be removed from the App.

4.5.3 Through wired switch (Only support push button)

Within 2 minutes after the controller is powered on, long press wired switch for 15 seconds, and output load state will be reversed, it means network information of controller is cleared (such as: long press the wired switch 15s, lamp will change from opened to closed, clear network is successful), can add controller through the app at this time. After the controller is powered on more than 2 minutes, the network information of controller cannot be cleared through the wired switch.

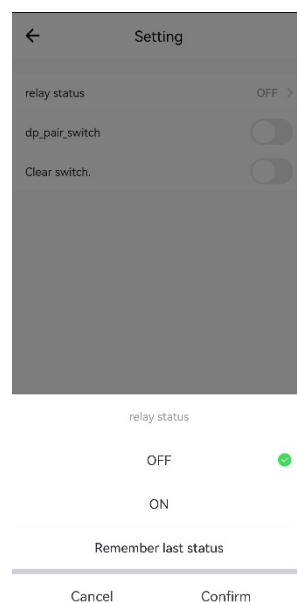
4.6 Bridging Mode

Press the button for 7 seconds, LED light changes from slow flashing to fast flashing (2 flashes per second), and release the button when it flashes quickly, and it enters the bridging mode. At this time, the light flashes once every 2 seconds. If need to exit the bridging mode, just repeat the above steps.

4.7 Wired switch control

The controller supports automatic detection of wired switch type (rocker switch or push button): After the controller is powered on, press the wired switch once to set the current wired switch type (for example, if the rocker switch is pressed after the controller is powered on, set the wired switch type to rocker switch). To reset the wired switch type, power off the controller and then power on it. Repeat the preceding steps.

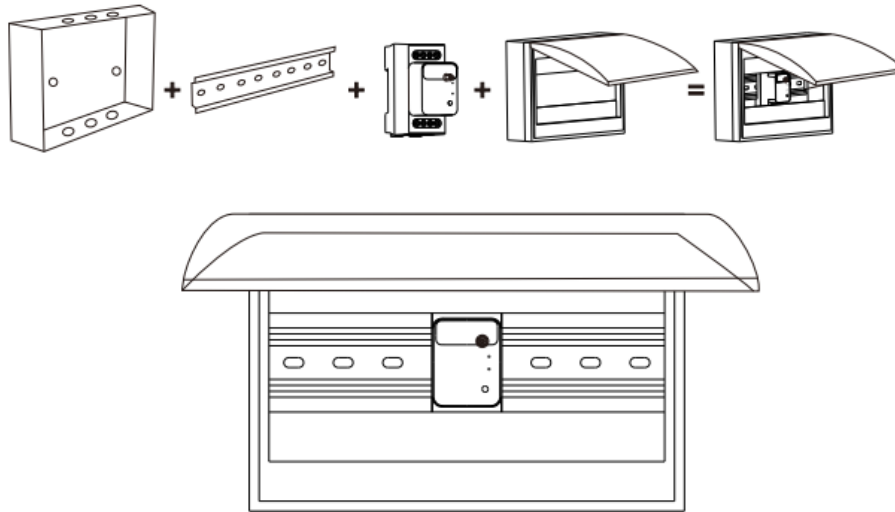
4.8 Relay Status (KRC2104-W)



Tuya APP

The default relay state of the controller is off, support the use of Tuya APP or ECS APP to set the relay state: OFF, ON, Remember last status. Enter the device interface in the app, click on “Settings” -> “Relay Status”, select the desired option and click “Confirm”, then the setting is successful. Set “Remember last status” to restore the controller to the state before power-off after power-on. Note: The Inching Mode has an effect on the “Remember last status”. If the inching mode is on, after the relay status of the device is set to “Remember last status”, the status before power-off is on, and after power-on the device will appear to be on first and off after a while.

5 Installation Diagram



6 Product Size

