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## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## RLY-8-RS485 8 Relay Controller SKU:DFR0290

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### Contents

- [1 Introduction](#)
- [2 Specification](#)
- [3 Tutorial](#)
  - [3.1 Requirements](#)
  - [3.2 Connection Diagram](#)
  - [3.3 PC Control of POE Relay](#)
    - [3.3.1 Open the Software](#)
    - [3.3.2 Select the network, and then select the network Control button, enter the network control interface](#)
    - [3.3.3 Network Control of POE Relay](#)
    - [3.3.4 Control the POE relay with RS485 BUS](#)
    - [3.3.5 Reset and Restore Factory Settings](#)
  - [3.4 Control](#)

## Introduction

The RLY-8 is a network relay controller with open source communication protocol. It integrates 8 channel relays and each relay could stand 277VAC-10A or 125VAC-12A power. Meanwhile most of the household appliances are under 250VAC, it means you could use it almost everywhere. The RLY-8 is using STM32 microcontroller. It supports 2 types of power supply: Wall adapter or PoE (Power over Ethernet) power supply. You could reduce its connection cable via PoE power supply. In addition, you also could control it via RS485 port or TCP/IP protocol. And RS485 and JSON protocol has been opened on the website.

This Ethernet relays are really great for IoT projects - with 8 relays, you have plenty of scope to try different things. Like a remote control light, a autoflowering greenhouse. With the open source protocol, you could add it in plenty of things you can do with this besides, just use your imagination!

## Specification

- Operating Voltage: DC:7-23V
- Relay number: 8
- Data Communication: Ethernet/RS485
- Network Configuration: Supports DHCP and Static IP
- Power Consumption: Max 3.5W
- Maximum Control: 277VAC-10A/125VAC-12A
- Control Mode: Ethernet/RS485
- Factory Settings: IP: 192.168.1.10 (port: 2000)
- Working Temperature: -30~85°C
- Weight: 530g
- Size: 145mm \* 90mm \* 40mm (5.7in \* 3.5in \* 1.6in)

## Tutorial

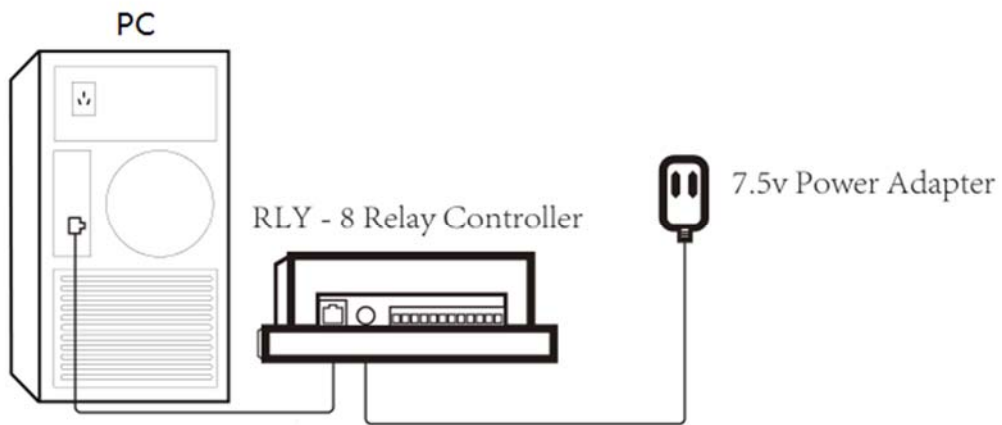
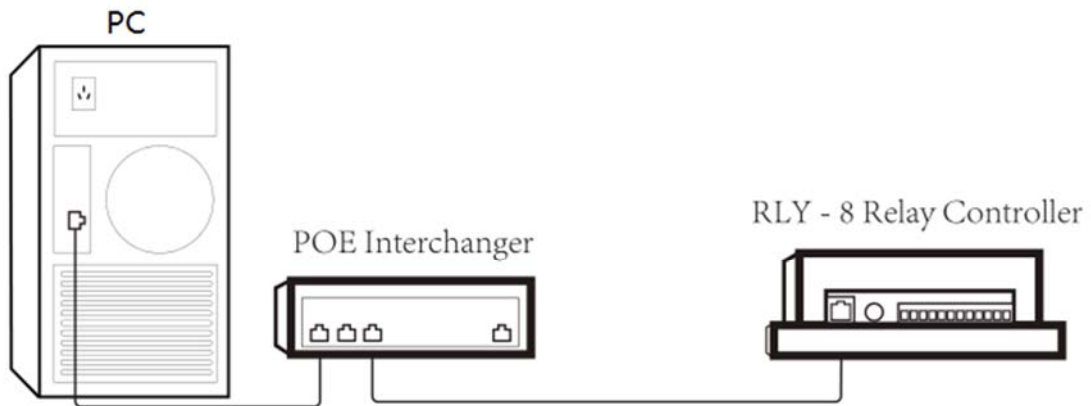
### Requirements

- **Hardware**
  - POE relay x1
  - PC X1
  - USB to RS485 transfer line or ethernet cable
  - POE Ethernet switch or ordinary Ethernet switch
- **Software**
  - PC Software (Windows) [Click to Download](#)

### Connection Diagram

RLY-8-PoE-RS485 supports 2 types of control mode: **Ethernet** and **RS485**  
In this section, we will introduce some typical connection:

- Ethernet



**NOTE:** If you directly connect to the computer, you will need to set a static IP. Going by RLY factory settings, you can set your computer IP to 192.168.1.x(x is 0~254 except 10), Subnetmask 255.255.255.0, gateway 192.168.1.1



- RS485 BUS

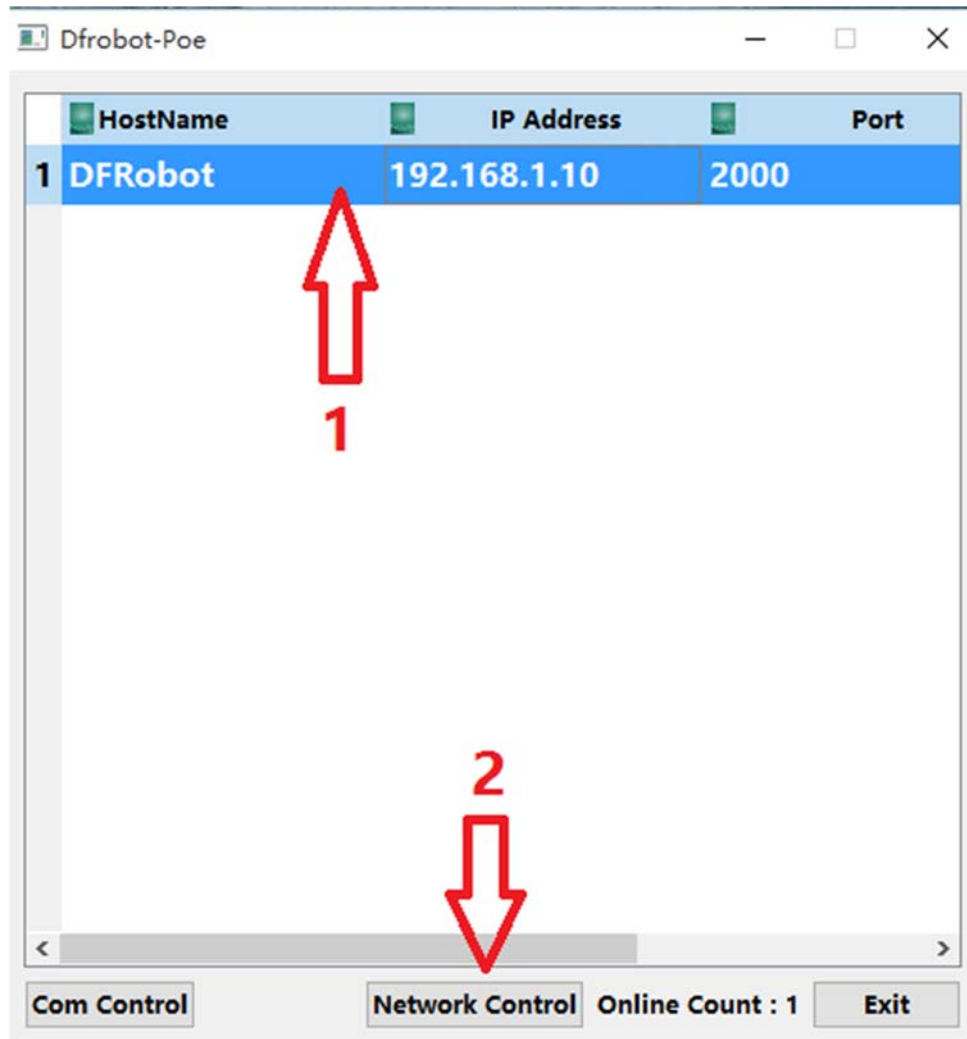


## PC Control of POE Relay

### Open the Software

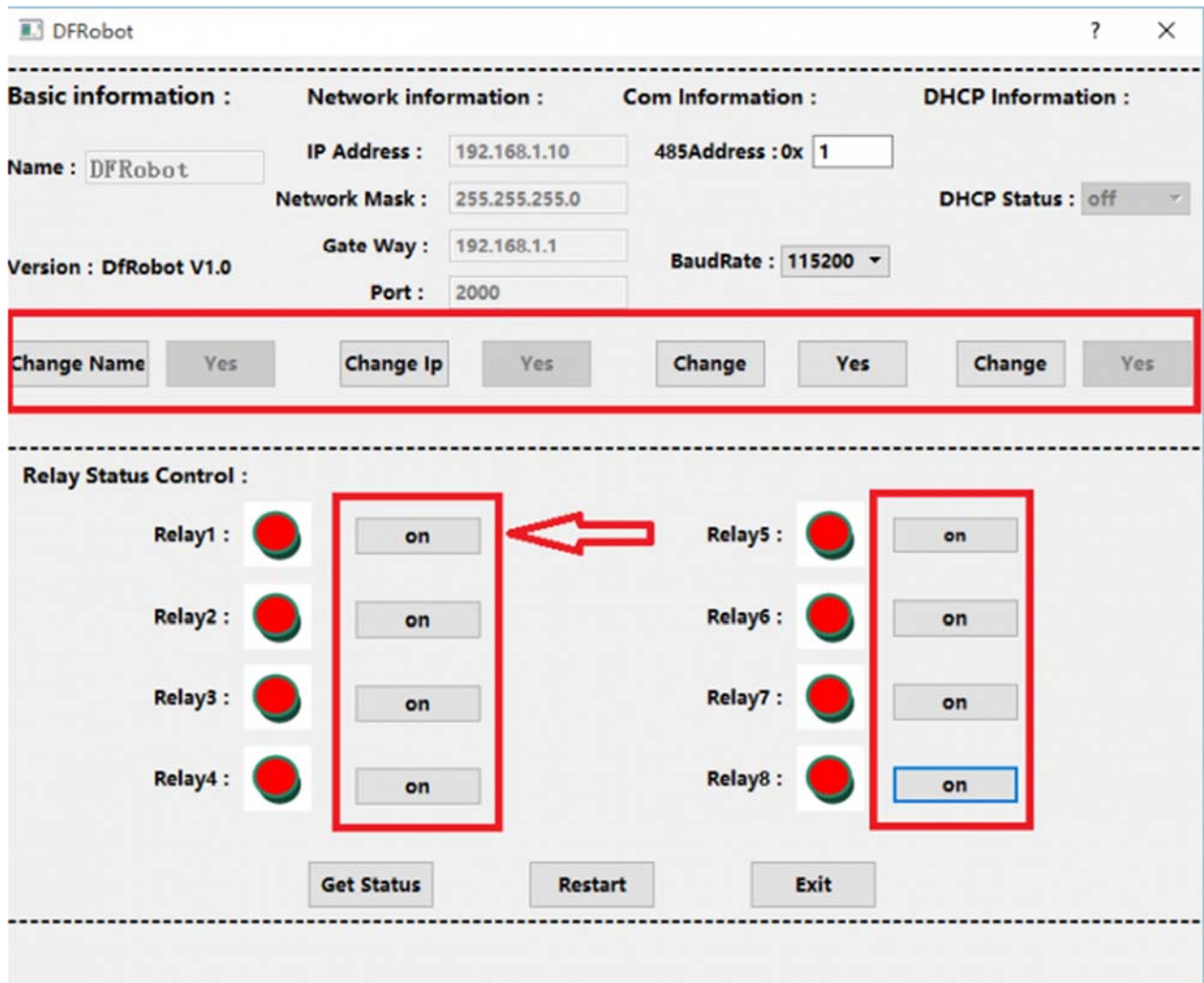
codecs	2015/4/21 10:02	文件夹	
designer	2015/4/21 9:59	文件夹	
imageformats	2015/4/21 10:03	文件夹	
platforms	2015/4/21 10:37	文件夹	
sqldrivers	2015/4/21 10:00	文件夹	
Enternet_Com_Control.exe	2015/5/11/4 10:07	应用程序	725 KB
icudt53.dll	2014/10/16 18:34	应用程序扩展	21,061 KB
icuin53.dll	2014/10/16 18:34	应用程序扩展	3,671 KB
icuuc53.dll	2014/10/16 18:33	应用程序扩展	2,045 KB
libgcc_s_dw2-1.dll	2014/10/23 18:27	应用程序扩展	118 KB
libstdc++-6.dll	2014/10/23 18:27	应用程序扩展	1,003 KB
libwinpthread-1.dll	2014/10/23 18:27	应用程序扩展	48 KB
Qt5Core.dll	2015/3/31 9:01	应用程序扩展	4,716 KB
Qt5Gui.dll	2014/12/6 1:43	应用程序扩展	5,090 KB
Qt5Multimedia.dll	2014/12/6 2:41	应用程序扩展	766 KB
Qt5Network.dll	2014/12/6 1:38	应用程序扩展	1,477 KB
Qt5Script.dll	2014/12/6 5:42	应用程序扩展	2,266 KB
Qt5SerialPort.dll	2014/12/6 2:10	应用程序扩展	94 KB
Qt5Widgets.dll	2014/12/6 1:49	应用程序扩展	6,315 KB

Select the network, and then select the network Control button, enter the network control interface



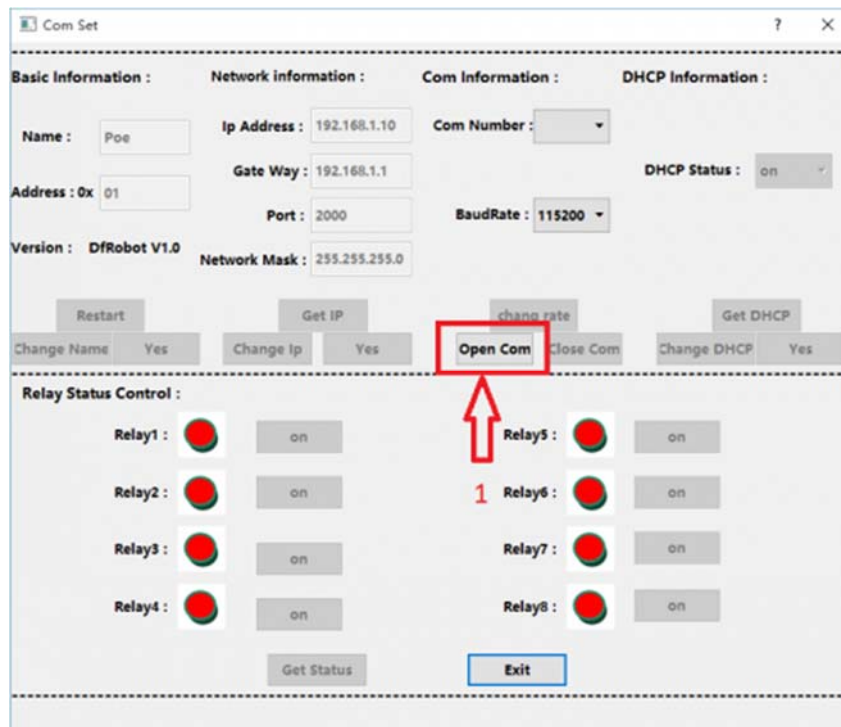
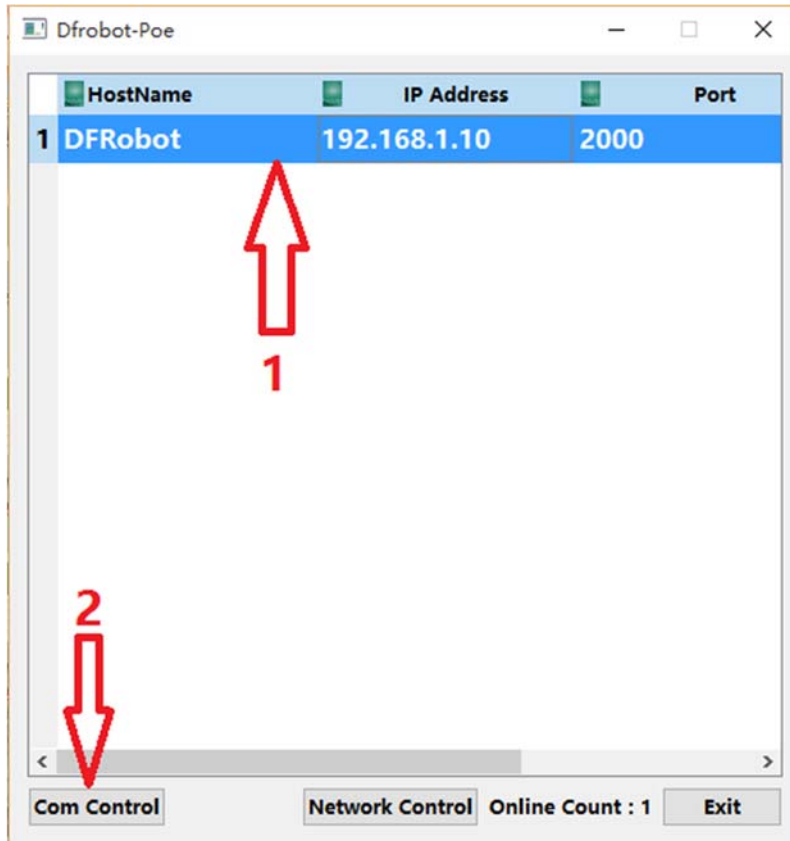
**NOTE:** It may take some time when the RLY-8 has just been powered on, please be patient waiting for the network list

**Network Control of POE Relay**



**NOTE:** It is recommended to click the "Get Status" button to get the current state when you want to control the relay.

## Control the POE relay with RS485 BUS



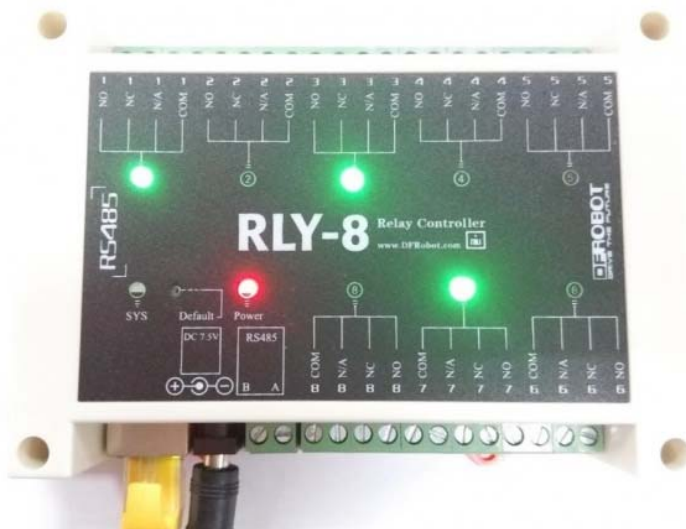


## Reset and Restore Factory Settings

To reset the factory default settings, hold the reset button until the lights begin to flash.



## Control



For any questions/advice/cool ideas to share, please visit [DFRobot Forum](#).