**16 Channel Multifunction RS485 Module Manual**

* [2CH RS485 Relay Serial HyperTerminal Enter](http://v.youku.com/v_show/id_XMTM0ODY4NzkxMg==.html)(Usage 2-channel and 8-channel is the same)::

**http://v.youku.com/v\_show/id\_XMTM0ODY4NzkxMg==.html**

* [2CH RS485 Relay Modbus Poll Enter](http://v.youku.com/v_show/id_XMTM0ODY4OTg5Mg==.html)(Usage 2-channel and 8-channel is the same):

**http://v.youku.com/v\_show/id\_XMTM0ODY4OTg5Mg==.html**

**Features:**

1: Operating Voltage : DC 5V

2: Operating Current : 10-15MA

3: "open" "close" "Momentary" "Self-locking" "Interlock" "Delay" 6 Commands

4: Two instruction-control mode : AT command and MODBUS command

5: Under the AT command ,the maximum delay is 9999 seconds

Under the MODBUS command ,the maximum delay is 255 seconds

6 AT commands can be made serial HyperTerminal (serial assistant) Enter;

MODBUS commands can be made serial HyperTerminal (serial assistant) OR "Modbus Poll" Enter;

7 Automatic recognition of two kinds of commamds,no need to switch..

7 Under the MODBUS command mode, it can support up to 247 devices in parallel

8 With RS485 and RS232 (TTL) dual bus interface

9 Output control pins 16, 5V TTL level, low level (default) / high level output

10 Size: 40 \* 30 \* 22mm(A version); 40 \* 30 \* 11.5mm(B version)

11 Weight: 9.2g(A version); 6.2g(Bversion);

**Glossary:**

Open : Control port output low level (default)

Close : Control port output high level (default)

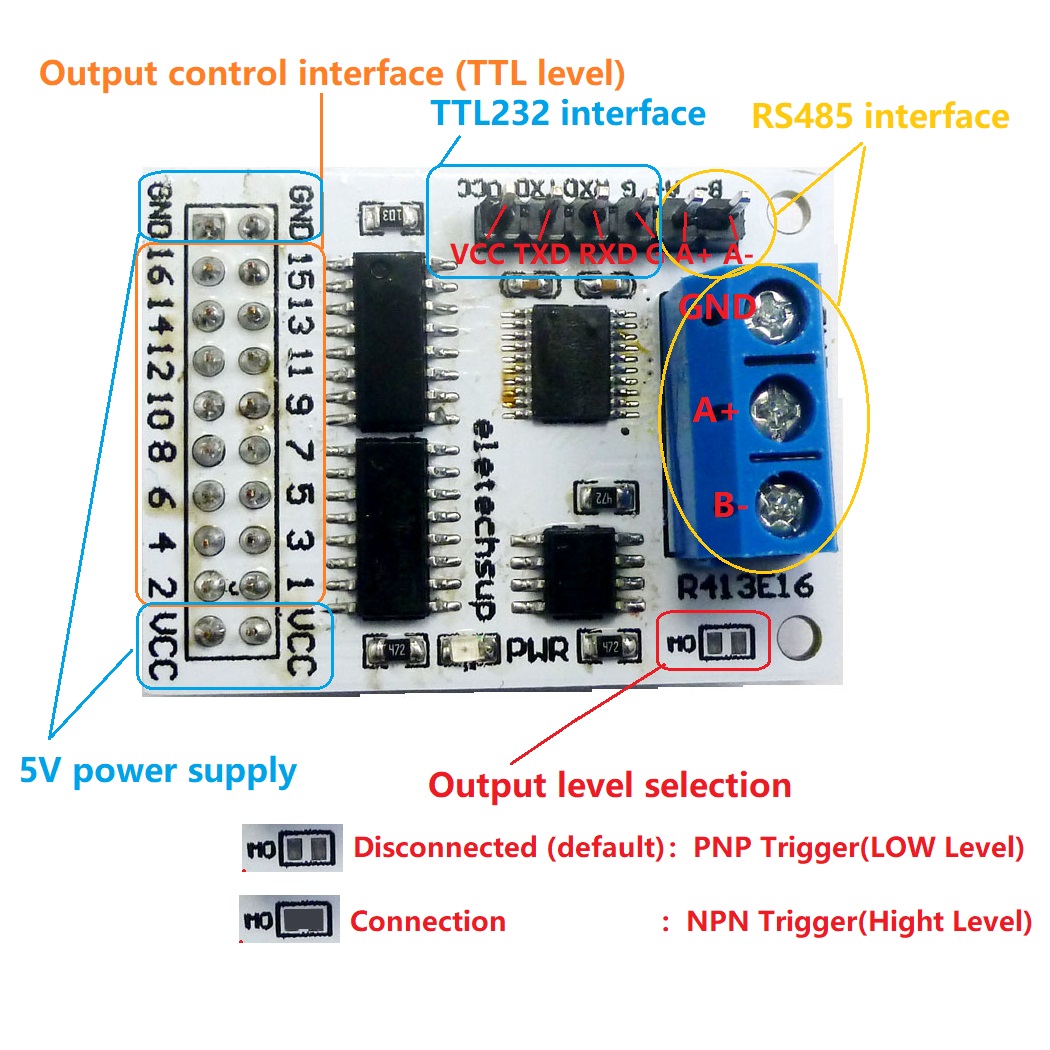
Momentary : Input command, Port output low level, return to high level after 1 second;

Self-locking : Input command, port output low level, input command again, port output high level, and so on;

Latched : Enter the Channel 1 Latched command, port 1 output low level, port 2-8 output high level. Enter the Channel 2 Latched command , port 2 output low level, port 1/3-8 output high level

Delay : Enter the Delay command, port output low level, delay of 0-9999 seconds(MODBUS command is 0-255 seconds )after, port output high level;

During the delay, Eter the Close command, immediately return to high level



MODBUS command and AT command is automatically recognized, no switching required

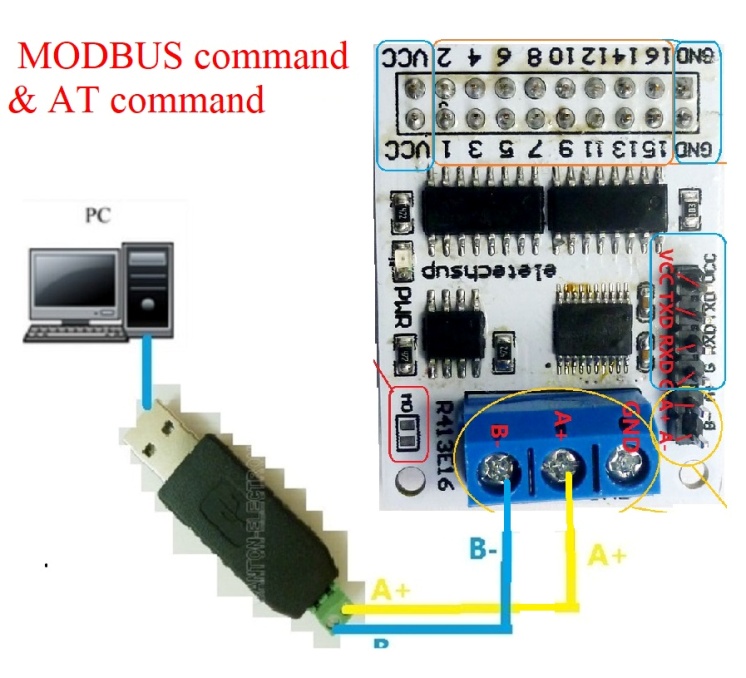
Output level selection : ( figure above) M0 disconnect is Low level output. M0 Connect is Hight level output

Slave ID: Different "Sliver ID" can be set by command, the maximum number is 247

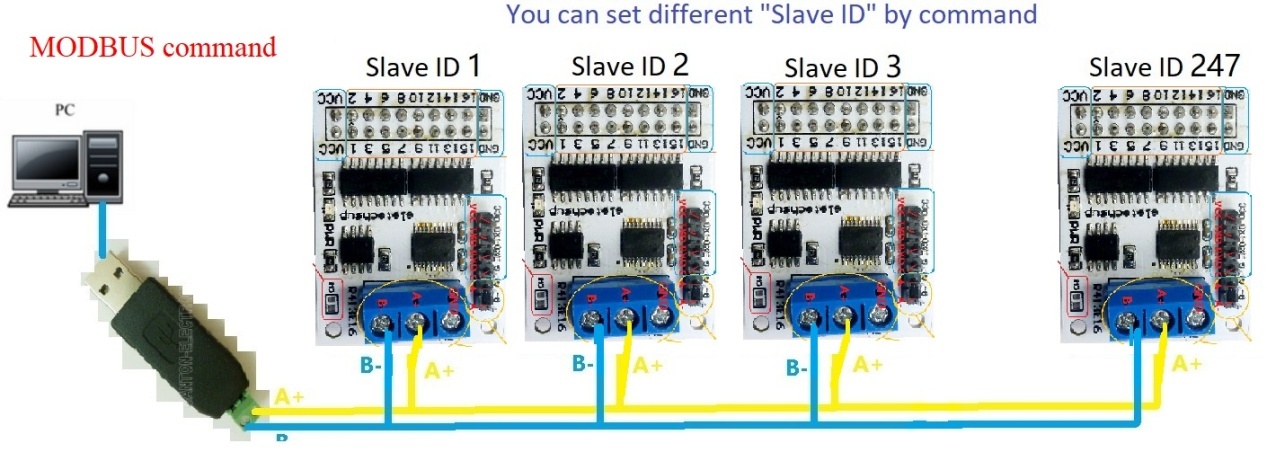
Under the MODBUS command mode,the slave ID must be correct

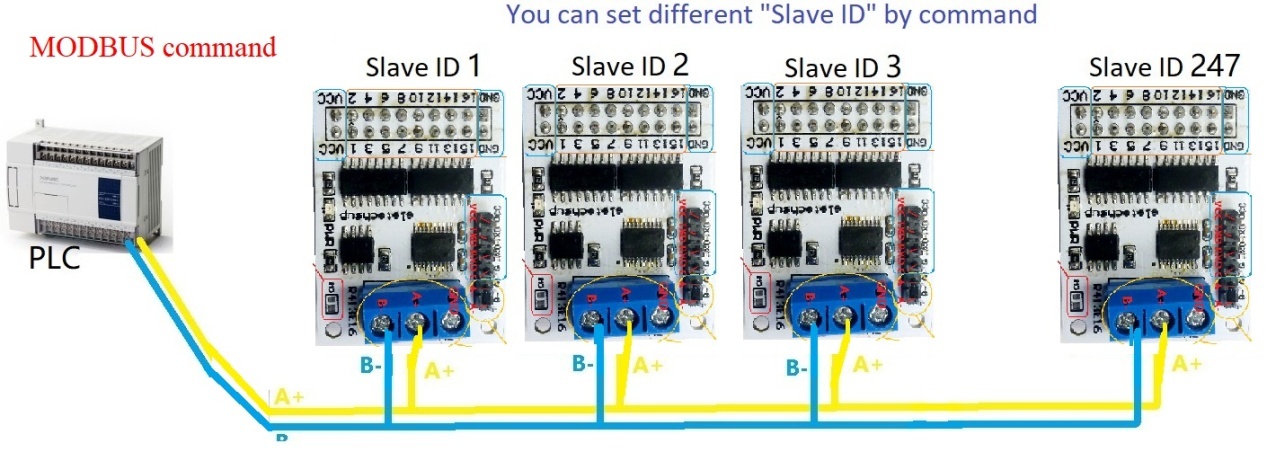
command Description, Please refer to " 16 Channel Multifunction RS485 Module commamd"

**Typical applications:**

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1 AT command mode, in this mode can be through the serial HyperTerminal (serial assistant) enter a simple AT command control relay. AT command mode time up to 9999 seconds

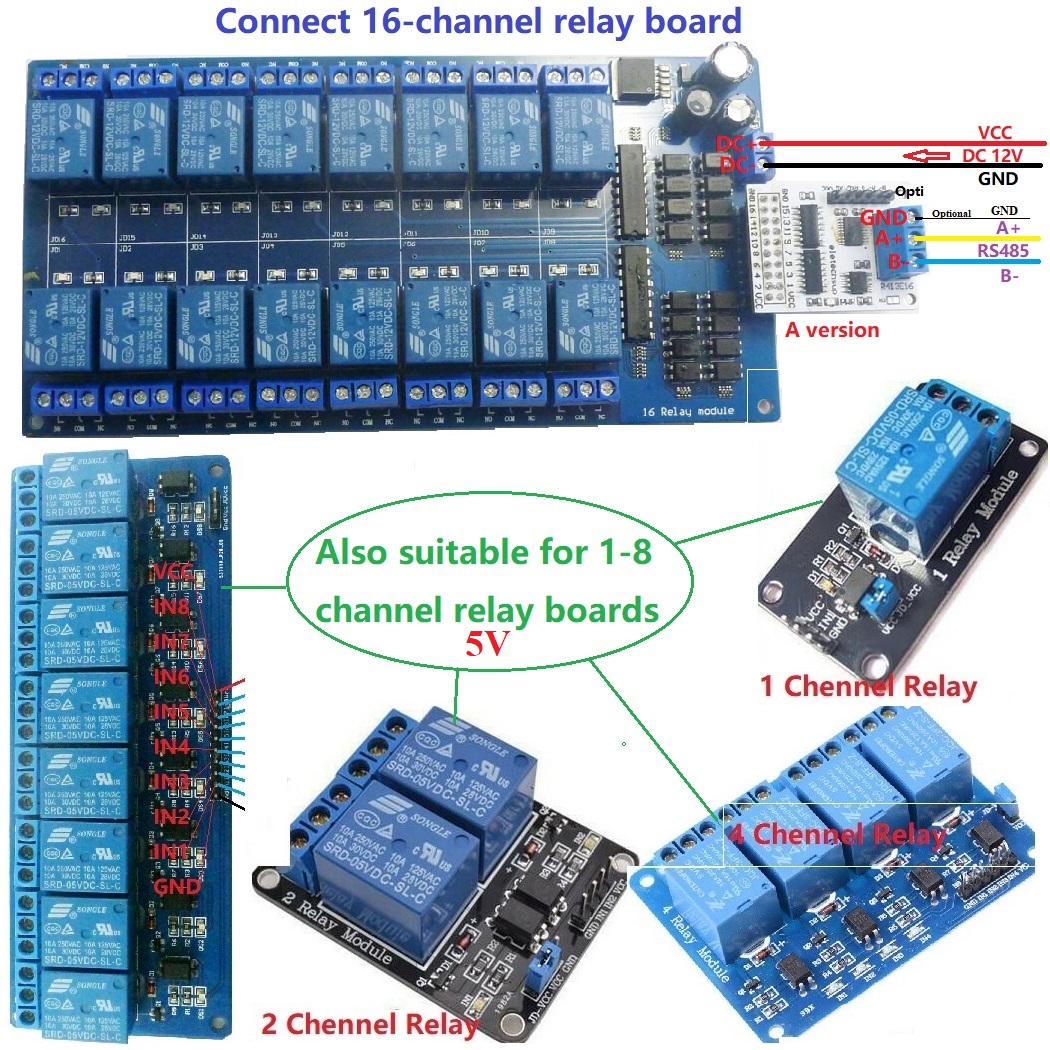




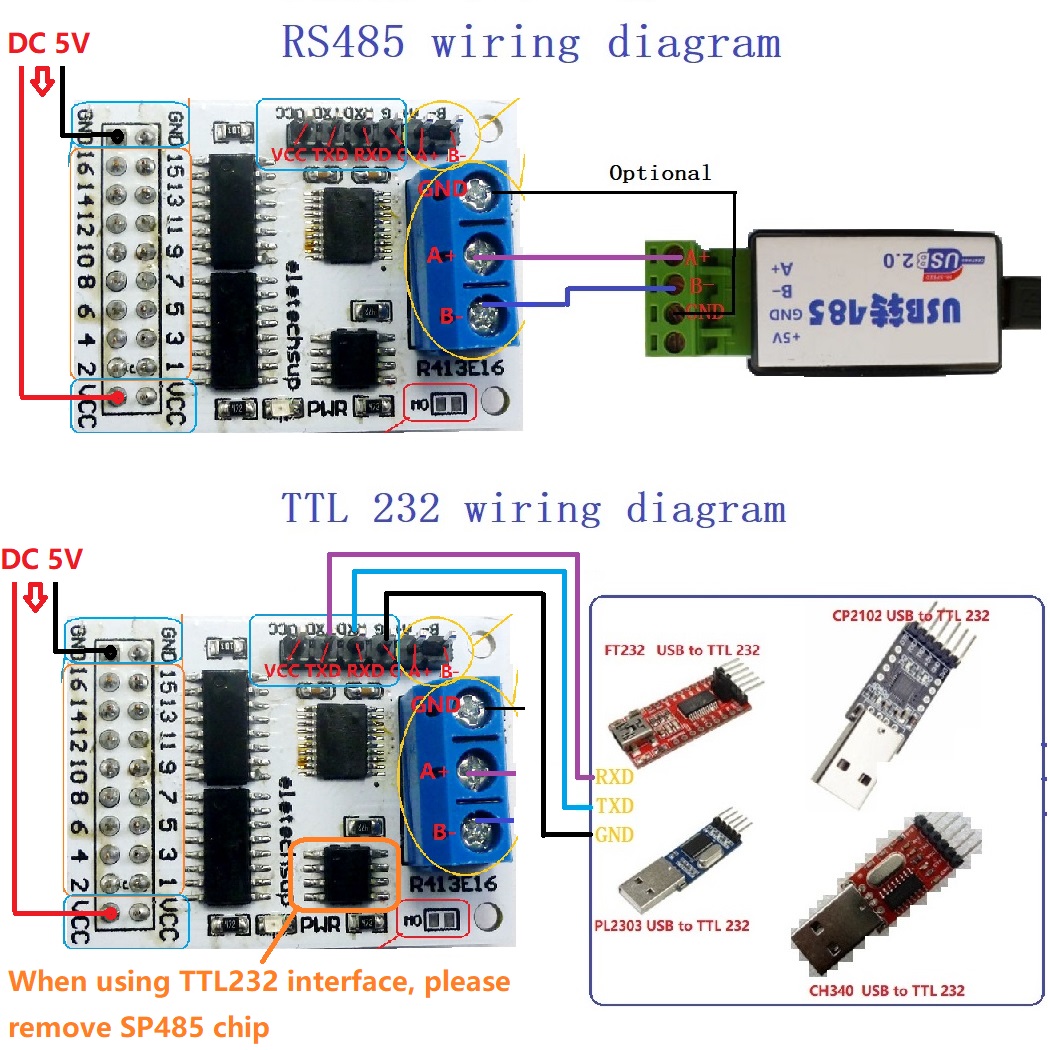
2 MODBUS command mode (HEX), you can control a variety of ways: Serial Hyper Terminal Control (need to manually add the CRC), Modbus Poll software control (software automatically add the CRC), PLC or MCU process control

It can control 1-16 channels Relay Module

(The control board is powered by 5V, but it can control 5-24V relay modules.)



With RS485 interface and RS232 (TTL) interface(It is recommended to remove the SP485 chip)



Version identification:

 A version for esy insertion into existing relay boards

B version for easy embedding of custom PCB

