



RM-012-IP-232-485
RM-012-IP-485-485

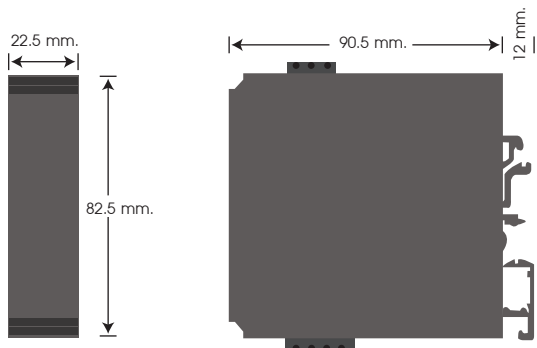


RM-012-IP-232
RM-012-IP-485

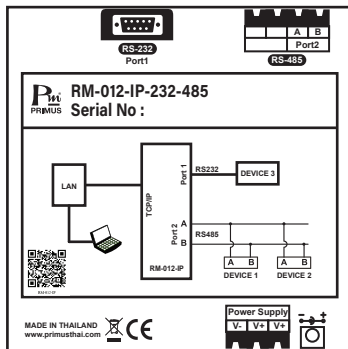
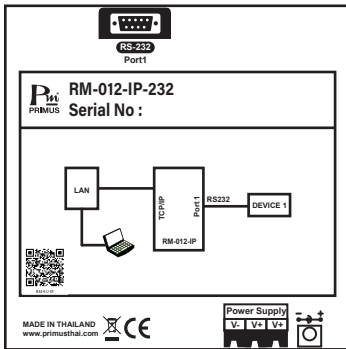
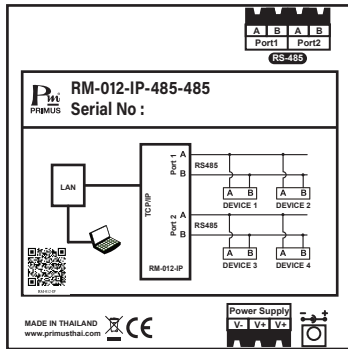
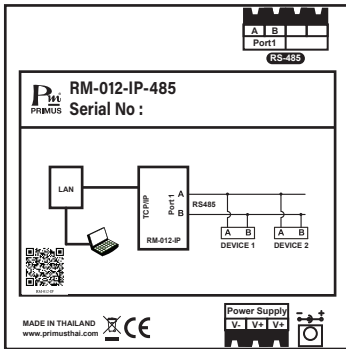
TECHNICAL SPECIFICATION

Power supply		9 - 30 VDC
Power consumption		1.8 VA
Display		1 LED (Show Status power supply)
		2 LED (Show Port Port)
		2 LED (Show Link Status)
		RJ-45 Base-T Haft/Full Duplex
Protection Port Ethernet		Ethernet port 1.5 KV
Serial Port	RS232	DB9
	RS485	2 Connector Pin
Communication	Protocol	TCP/IP (Configuration Parameter) , I TCP Client/Port
	Communication mode	TCP Socket, Modbus
	Baud rate	2400, 4800, 9600, 19200, 38400, 57600 bps
	Parity	None, even, odd
	Data Bit	8 bit
	Stop Bit	1, 2
	Support device node	32
Ambient operation	Temperature	-10 °C to 60 °C
	Humidity	85 % RH Non-Condensing
Ambient storage	Temperature	-20 °C to 80 °C
	Humidity	85 % RH Non-Condensing
Protection degree		IP20
Installation		Panel, Mounting
Material		IP20 IEC 529, EN60529
Size		22.5 x 82.5 x 90.5 mm.
Weight		100 g.

DIMENSION



WIRING DIAGRAM



DISPLAY



Link LED will flesh when data is transmitted from RS485 device.

Port LED turn on when device has connected and flash when it receives data

DESCRIPTION

- Converter device convert from TCP / IP to RS485 / RS232
- Can set device via normal web browser page and no need to install program.
- LED shows operation status
 - Power : LED ON when supply voltage 9-30 VAC/VDC.
 - Port LED shows TCP Client status.
 - Link LED shows RS485 communication status.
- Adaptor 9 VDC to supply voltage to RM-012-IP.

GENERAL DESCRIPTION

RM-012-IP is device which is intermediary to connect with the industrial devices that support RS-485 or RS-232 such as PLC, CNC, Weighting Scale, Scanner etc. This device can communicate on TCP/IP network directly. RM-012-IP device setting can set via Web browser such as Internet Explorer and no need to install program. RM-012-IP has 4 model such as

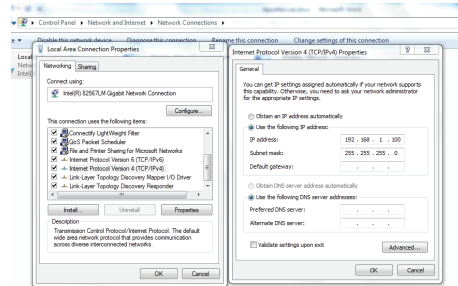
- RM-012-IP-232
- RM-012-IP-232-485
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USAGE SETTING AND TEST FOR FIRST TIME

Required Device

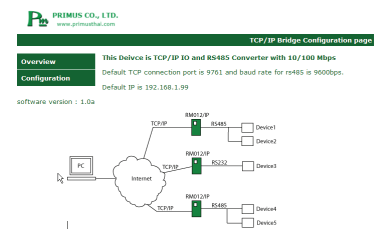
- 1.RM-012-IP 1 unit
2. LAN cable Cross type 1 unit
3. Computer 1 unit
4. USB cable to Serial or USB to RS-485

1.Use computer set IP Address by use. From example below set IP Address 192.168.1.100 DO NOT set value to be 192.168.1.99 because Module use this IP Address.



Picture shows IP Address setting

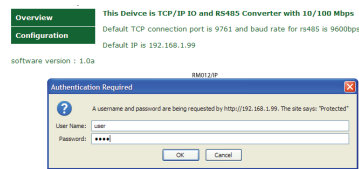
2. Connect Module to Computer by LAN Cross
3. Web browser and http://192.168.1.99 will see Homepage to set as picture below.



If user cannot access to setting page. Check LAN cabke and other setting then Reset Module by press Reset keypad and hold for 3-4 seconds until green LED flash.

Picture shows Web page

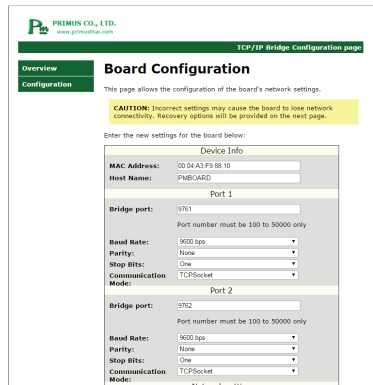
4. Click Configuration device will ask User Name and Password to access to setting.



Picture shows page for filling User and Password

Manufacturer Default Value of User Name is "user" and Password is "1234" so user can change in later In case user cannot log in or forget password, user can Reset module by pressing Reset until green LED has flash light.

5. If Log in successfully, user will see Configuration page.



Picture shows Configuration

- * สำหรับกรณีรุ่นที่มี Port เดียว, การตั้งค่าของ Port 2 จะไม่ปรากฏให้เห็น
- * For single port model, Port 2 setting will not appear

ORDERING CODE

RM-012-IP -			
PORT 1		OPTION PORT 2	
232	RS-232	485	RS-485
485	RS-485		

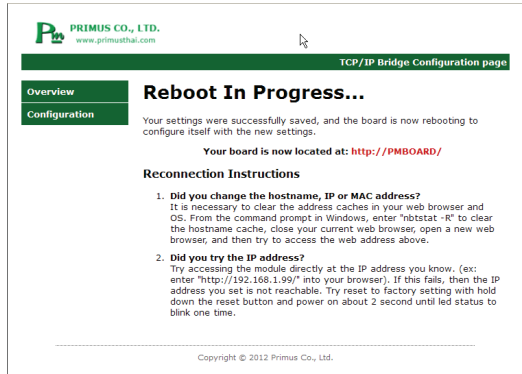
6. Setting details of Device Info and Port 1 and Port 2 (if have) to be follow as below

Name	Description	Start Value
MAC Address	MAC Address value is specific value for each address has pattern HH:HH:HH:HH:HH:HH can not change value.	-
Host Name	Host name of device and you can access device via Host name other than access via IP Address directly such as http://pmboard limited letters 12 letters and no gap.	PMBOARD
Bridge Port	Port Number of TCP/IP can set since 100-50000 for 2 port model the value between Port 1 and Port 2 must be difference.	Port A = 9761 Port B = 9762
Baud Rate	Serial transmit and receive Rated. The value that can set 2400, 4800, 9600, 19200, 38400 or 57600 bps	9600 bps
Parity	Parity bid set 3 values are None, Odd parity and Even parity	None
Stop Bits	Stop bits is possible 2 value are 1 or 2	One
Communication Mode	Communication mode can choose 2 mode are TCP Socket and Modbus	TCP Socket

7. Setting Details of Network Setting and describe as table below

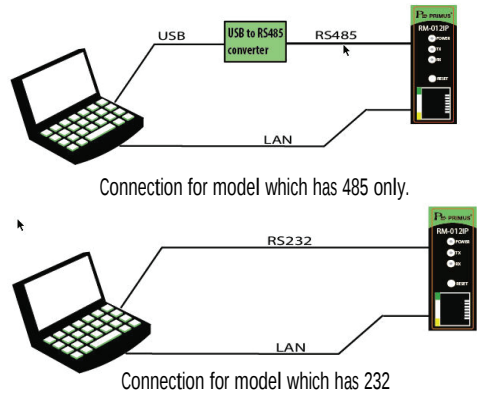
Name	Description	Start Value
User ID	User name for log in to system Maximum 6 characters	user
Password	Password for log in to system Maximum 6 characters	1234
Enable DHCP	DHCP is option in case need received value from other value automatic. If user enable module it will set value such as IP Address from Router or Switch	Disable
IP Address	IP Address of RM-012-IP	192.168.1.99
Gateway	IP Address of gateway device. Normally, it will Router or Switch.	192.168.1.1
Subnet Mask	Subnet mask	255.255.255.0
Primary DNS	Primary DNS (Normally, it will point to Gateway)	192.168.1.1
Secondary DNS	Secondary DNS will use in case Primary DNS has problem	0.0.0.0

After press Save Config Module will restart and back to first page automatically.



Now you can use devices with Config value as require.

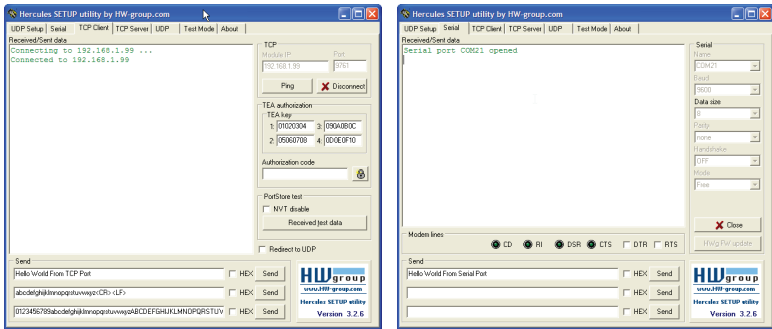
8. From setting is lasted unit, this time will test device in preliminary.



LAN Cross cable the same for 2 Port model and choose to use 1 port of them but this test will use 1 Port model as main
Open Hercules Hercules program 2 window
can download from this link http://www.hw-group.com/products/hercules/index_en.html

TCP SOCKET MODE

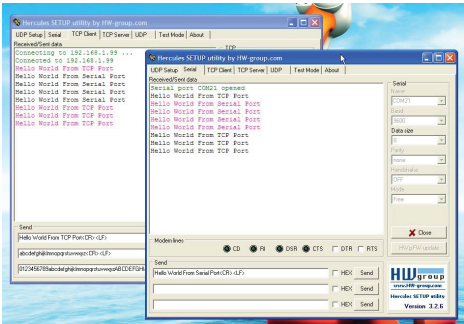
First window choose Tab TCP Client to connect to IP number of device and port number that use in test first window. Choose Tab TCP Client and connect to port that user needs to test (In this topic will test Port A that has Port Number = 9761). The second window choose tab Serial and set to correct value before press Open



Window 1.

Window 2.

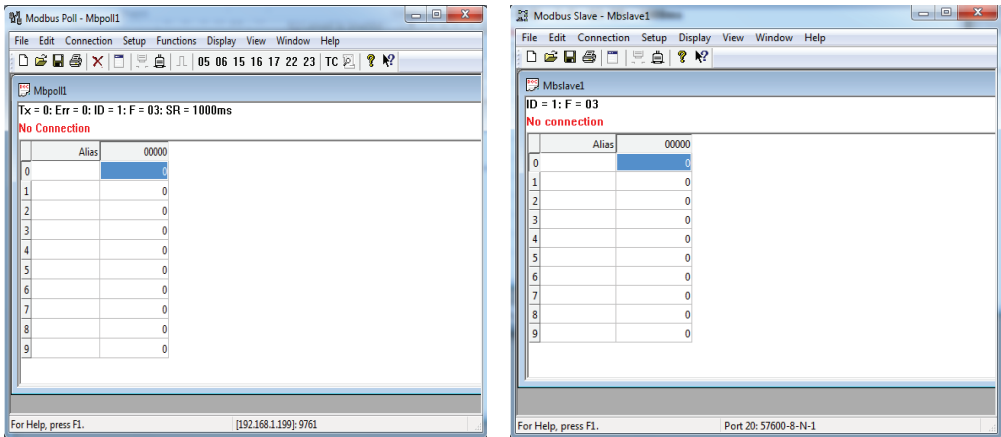
Fill text in TCP or Serial window will see that data is transmitted between each other.



Device operate as Bridge is transmitting data that come to device from TCP or Serial to another side.

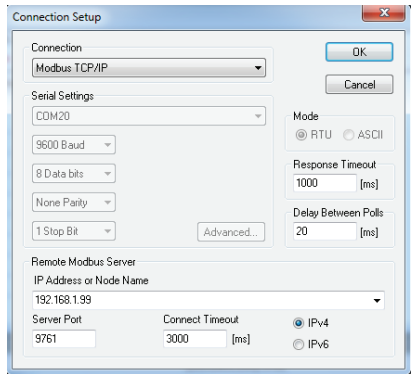
MODBUS MODE

Open program Modbus Poll for being Master Modbus TCP and program Modbus Slave for to be Slave Modbus RTU.

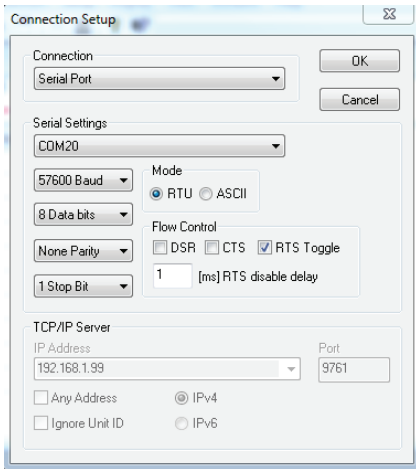


Modbus Poll program window with Modbus Slave

Set Modbus Poll go to Tab Connection-> Connect... choose Modbus TCP/IP (This example set IP Address 192.168.99 and Port 9767) then press OK. For setting Modbus Slave go to Tab Connection-> Connect..choose Serial Port set all correct value then press OK.

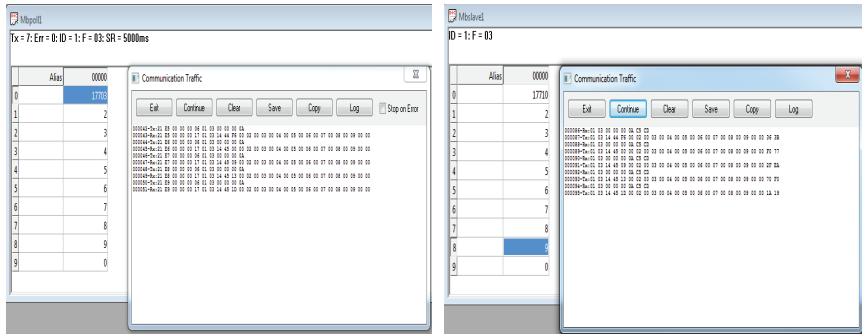


Picture Modbus Poll program setting



Picture Modbus Slave program setting

After finished setting value both of 2 programs by sort. We will see program Modbus Poll will send command set in Modbus TCP protocol but Modbus Slave receive command is Modbus RTU as same as when transmit back (Set Register of Modbus Slave will get number follow picture)



Picture show result from 2 programs

Frequently Question and Problem

- How to reset Configuration value
 - Press Reset and hold.
 - You will see Link LED flash (Green LED).
 - Leave Reset button complete reset process.
- Can not enter to web page for setting devices.
 - Check IP Address or Host name of device that change or not. If user does not sure. Reset Configuration value in device.
 - Network system has the problem or not. In case that you connect with your own network. IP Address Subnet mask setting and other are correct and suitable or not. Try to ask correct setting from IT department of user company.
 - In case user connect with connect directly without router or switch. User has to use LAN cable in Cross type.
- Forgot username or password how can we retrieve the data.
 - The data can not retrieve you have to reset device only and set other value again. default username is "user" and password is "1234".
- Software can not connect with other device in RS485/RS232 side such as CNC and PLC or operate incorrect.
 - Check the setting Serial such as Baud Rate, Parity and Stop bits are correct or not.



RM-012-IP

Pm
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