

PL-RNet DI/RO TO ETHERNET CONVERTER

Low Cost Solution

DESCRIPTION

Ethernet Relay I/O PL-RNet is an ideal product to make data acquisition easier through Modbus/TCP protocol on an existing Ethernet network. With Ethernet I/O PL-RNet, the controlling and monitoring of distributed control system can be easily accomplished.

It supports ARP, ICMP, TCP, UDP, IP, DHCP-Client and even HTTP protocols. You can use any browsers to set the parameters, or just use the commands in console mode.



FEATURE

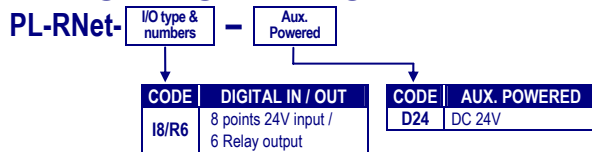
- Supports ARP, ICMP, TCP, UDP, IP, DHCP, HTTP, Modbus/TCP, and 10Base-T Ethernet standard
- Supports Web Based interface for fast configuration without special software, also command mode for parameters setting by application software.
- Supports Modbus/TCP for easy integration with HMI/SCADA or OPC server
- Supports Winsock networking and optional "Virtual serial ports" driver for windows application program

APPLICATIONS

It is easy to convert DI status and Relay control to Ethernet in IA, Factory Automation, Security or any other low data rate data transmission by using it as the intermediate converter.

- Security devices
- Warehouse terminals
- Access control terminals
- Time recorders
- Shop floor automation terminals

ORDERING INFORMATION



TECHNICAL SPECIFICATION

CPU: 8051
Network interface: 10 BASE-T, RJ-45 connector
Protocol: ARP, ICMP, TCP, UDP, IP, DHCP Client, HTTP, Modbus/TCP Slave,
Reset: Built-in reset key to restore the defaults
Watch dog timer: Built-in hardware auto reset function

DI & RO 8 DI & 6 RO available
Digital input: photo-couple, 24V±10%, 7mA
 ON status: 12V/2.0mA or higher
 OFF status: 4V/1.0mA or lower
 Response: 8 msec or less

Relay output: Relay, Form A; 3A/250V
 photo-couple Isolation with CPU
Max. switching freq.: 3600 times/hour

LED indication: SYS: Red high bright round LED
 Link: Green high bright round LED
 RO(Relay output): 6 Red high bright round LED

Configuration: Web Browser, Windows utility via Ethernet
 Set up password & Access password settable

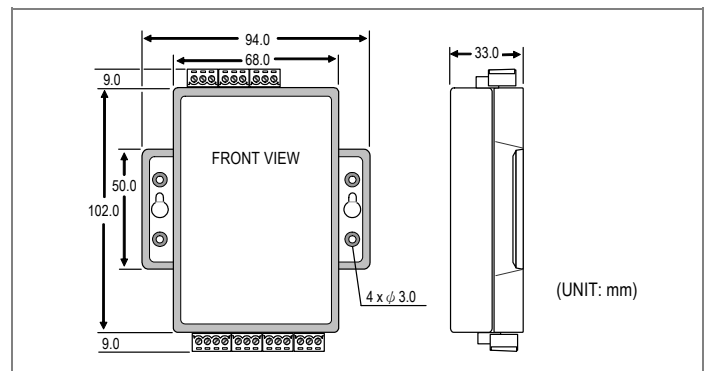
Power
Power Supply: DC 24V
Power consumption: ≤ 1W

Electrical
Isolation: Isolated between DI, RO and Ethernet (RJ45)
Dielectric Strength: 3 KV, 1 minute; between Serial ports / RJ45 / Power
Insulation resistance: ≥100MΩ at 500Vdc, Between Serial ports / RJ45 / Power

Environmental
Operating temp.: 0~60 °C
Operating humidity: 20~95 %RH, non-condensing
Storage Temp.: -10~70 °C

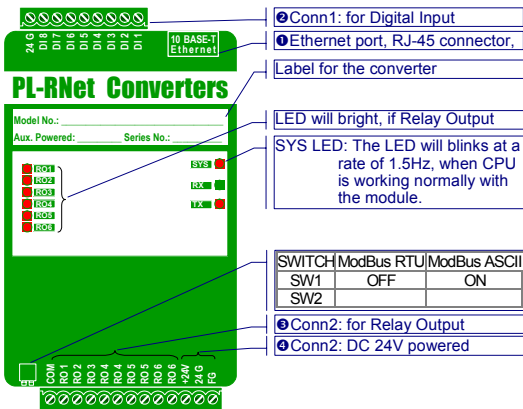
Mechanical
Case Material: ABS fire-protection (UL 94V-0)
Mounting: Surface mounting
Terminal block: Plastic NYLON 66 (UL 94V-0)
Weight: 150g

DIMENSIONS



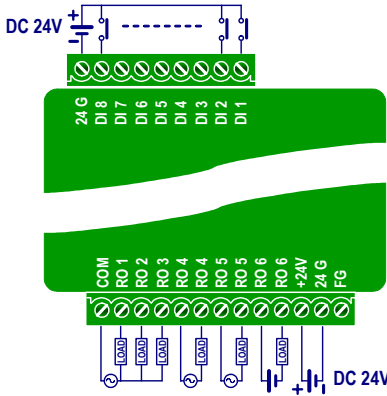
FRONT PANEL & CONNECTION

Please check the voltage of power supplied first, and then connect to the specified terminals.

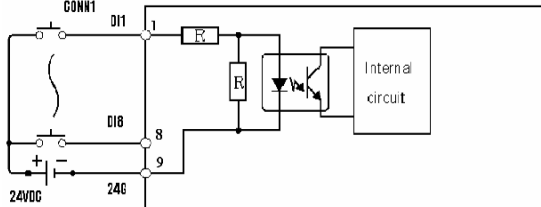


Digital Input / Relay Output

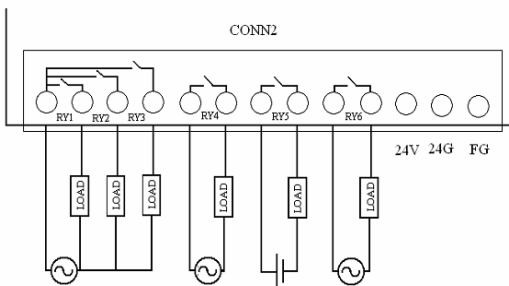
8 DI & 6 RO



Equivalent Input Circuit



Equivalent Output Circuit

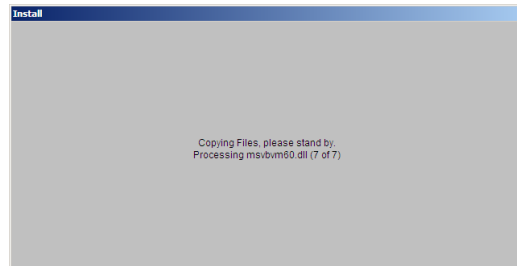


SET UP & CONFIGURATION

Please refer to the operating manual for detail.

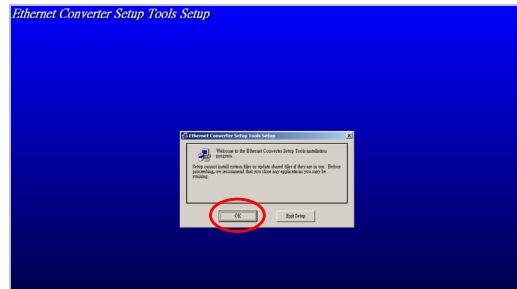
By set up tool

Step 1: Execute the Setup.exe file of CDR enclosure with product. Execute the Setup.exe file and you will get the following screen



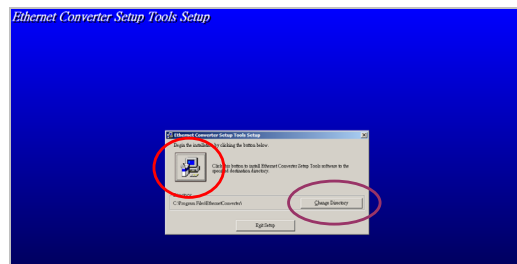
Step 2: Welcome Messages

Wait until the Welcome Message shows. Select OK Button to continue installation.



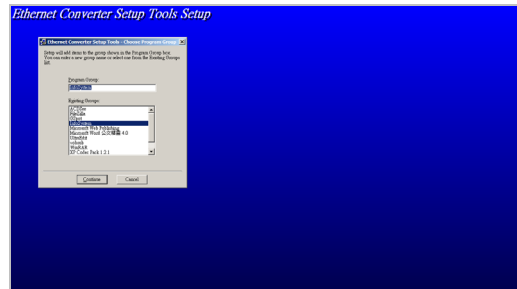
Step 3: Decide Directory

Choose "Change Directory" to change which directory you want to put files in if needed. And press red circle button to start installation.



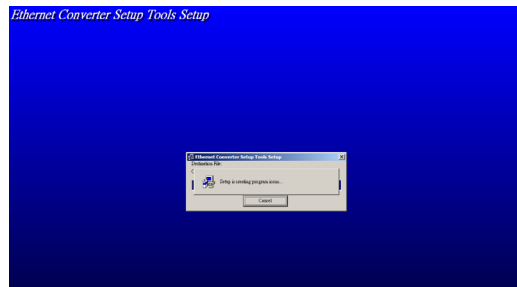
Step 4: Decide Program Group Name

Input the "Program Group Name" you want, by just left it by default.

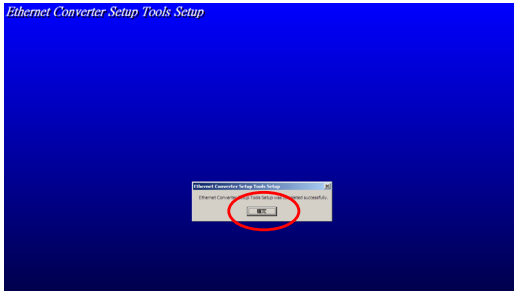


Step 5: Processing

Start installation process.



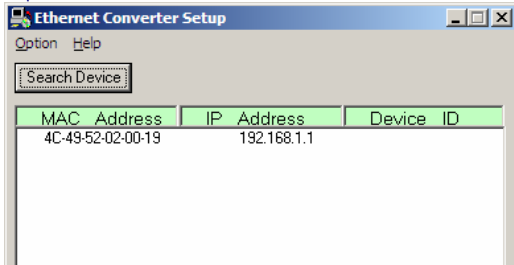
Step 6: Finished
Press Button to finish installation.



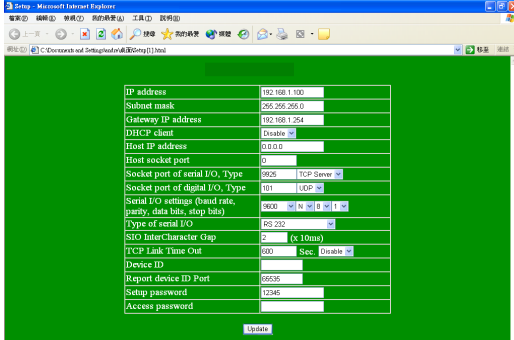
Connect the converter and Ethernet port of PC, then configure the converter

Step 1: Auto-searching the devices.

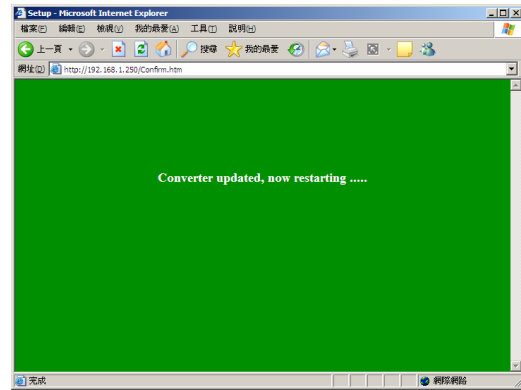
Step 2: Double click the selected item.



Step 3: Configure and update your parameters.



Step 3: Finish and reboot



MODBUS ADDRESS FOR DI/RO

The DI/RO points of the PL-RNet can easily be controlled and monitored through Modbus protocol. The Modbus address mapping with DI/RO is described as the followings.

Digital Output

The 6-points or 8-points digital output of PL-DNet is mapped with the Modbus holding register "40001". The following table describes the exact bit-mapping for Modbus holding register "40001".

NAME	ADDRESS	EXPLAN	Write/Read
RO	40001	RO status bit0~bit5: RO1~RO6 0 = off 1 = on	W/R

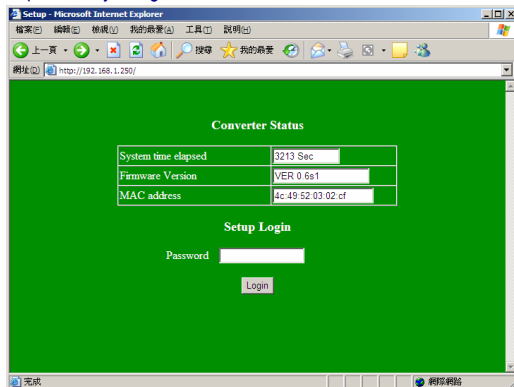
Digital Input

The 8-points digital input of PL-RNet is mapped with the Modbus holding register "40002". The following table describes the exact bit-mapping for Modbus holding register "40002".

NAME	ADDRESS	EXPLAN	Write/Read
DI	40002	DI status bit0~bit7: DI1~DI8 0 = off 1 = on	W/R

By Browser

Step 1: Ready to login.



Step 2: Configure your parameters

