PL-RNet DI/RO TO ETHERNET CONVERTER

■ DESCRIPTION

Low Cost Solution

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

PL-RNet- [I/O type & numbers] – [Aux. Powered]

CODE	DIGITAL IN / OUT
I8/R6	8 points 24V input / 6 Relay output

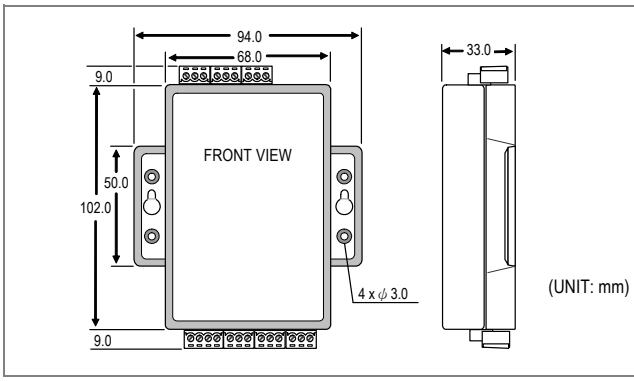
CODE	AUX. POWERED
D24	DC 24V

■ 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

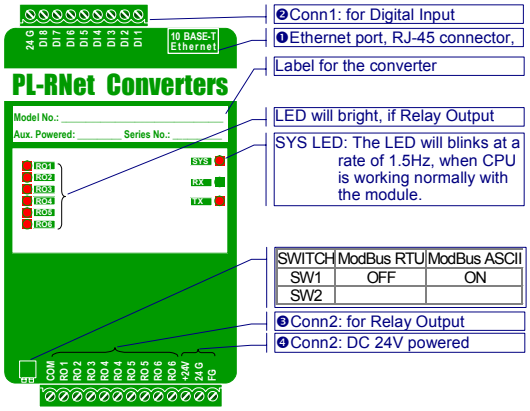
Environmental	
Operating temp.:	0~60 ˚C
Operating humidity:	20~95 %RH, non-condensing
Storage Temp.:	-10~70 ˚C
Mechanical	
Case Materiel:	ABS fire-protection (UL 94V-0)
Mounting:	Surface mounting
Terminal block:	Plastic NYLON 66 (UL 94V-0)
Weight:	150g

■ DIMENSIONS



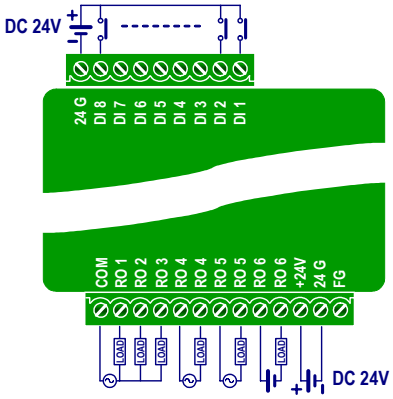
■ FRONT PANEL & CONNECTION

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

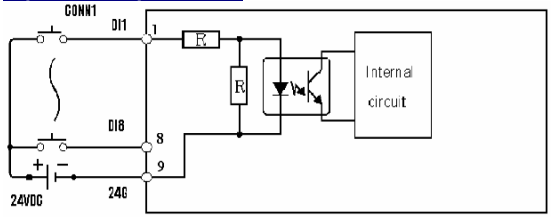


Digital Input / Relay Output

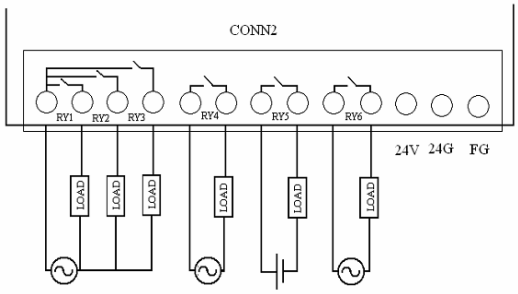
8 DI & 6 RO



Equivalent Input Circuit



Equivalent Output Circuit

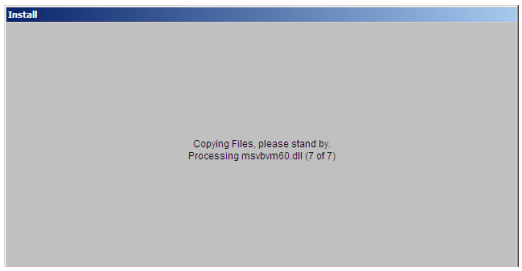


■ SET UP & CONFIGURATION

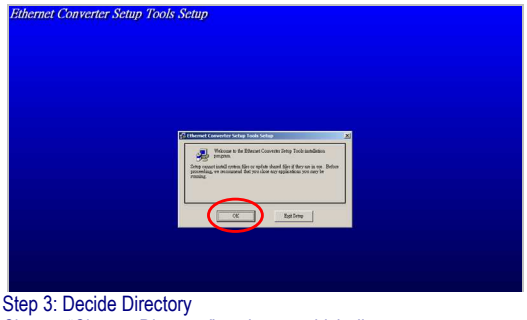
Please refer to the operating manual for detail.

By set up tool

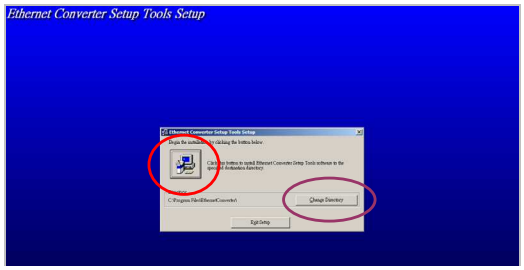
Step 1: Execute the Setup.exe file of CDR enclosure with product.
Execute the Setup.exe file and you will get the following screen



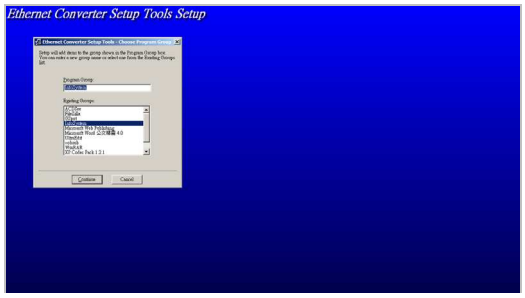
Step 2: Welcome Messages
Wait until the Welcome Message shows. Select OK Button to continue installation.



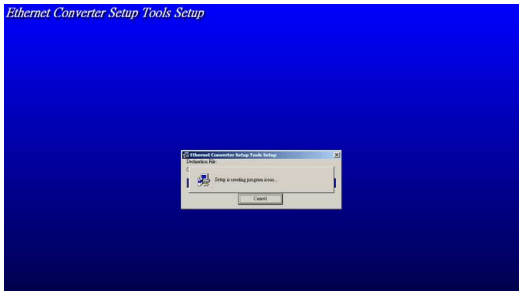
Step 3: Decide Directory
Choose “Change Directory” to change which directory you want to put files in if needed. And press red circle button to start installation.



Step 4: Decide Program Group Name
Input the “Program Group Name” you want, by just left it by default.

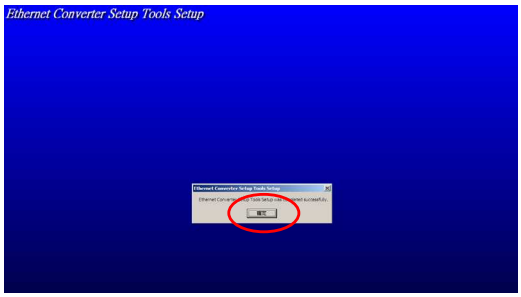


Step 5: Processing
Start installation process.



Step 6: Finished

Press Button to finish installation.

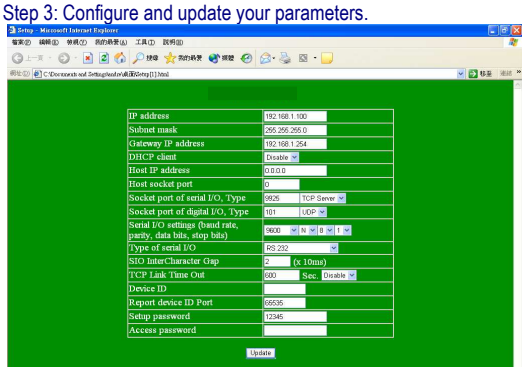


Connect the converter and Ethernet port of PC, then configurate the converter

Step 1: Auto-searching the devices.

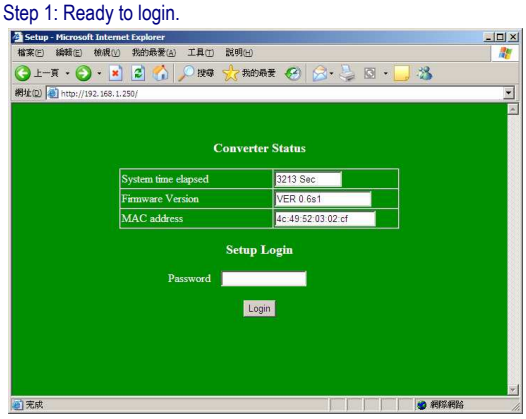
Step 2: Double click the selected item.

Step 3: Configure and update your parameters.

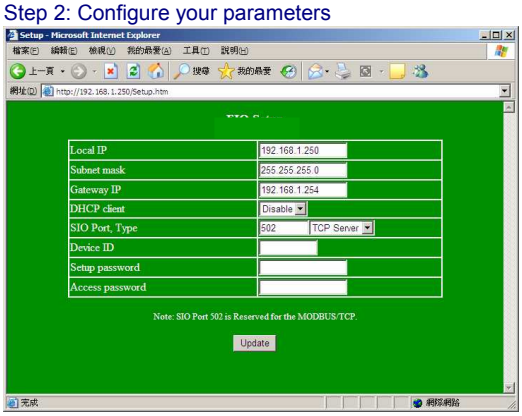


By Browser

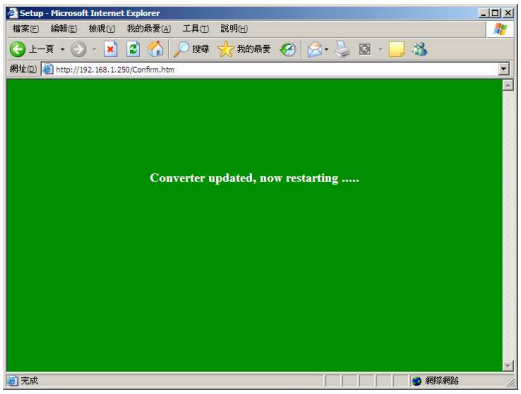
Step 1: Ready to login.



Step 2: Configure 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**