ET-2242 Quick Start

v1.1, Mar. 2018

What's in the box?

The package includes the following items:

ET-2242 Module x 1

Quick Start x1
(This Document)

Related Information

- ET-2200 Series Product Page:

http://www.icpdas.com/root/product/solutions/remote_io/ethernet_io/petl-7000_tpet_tet/petl_series_main_page.html

- Documentation & Firmware:

http://ftp.icpdas.com.tw/pub/cd/6000cd/napdos/et2200/

- NS-205/MDR-20-24 Product Page (optional):

http://www.icpdas.com/root/product/solutions/industrial_ethernet_switch/ns-205.html

http://www.icpdas.com/root/product/solutions/accessories/power_supply/mdr-20-24.html

1 Connecting the Power and Host PC

1) **Make sure your PC has workable network settings.**

Disable or well configure your Windows firewall and Anti-Virus firewall first, else the **"Search Servers"** on **Chapter 5** may not work. (Please contact with your system Administrator)

2) **Connect both the ET-2242 and your PC to the same sub network or the same Ethernet switch.**
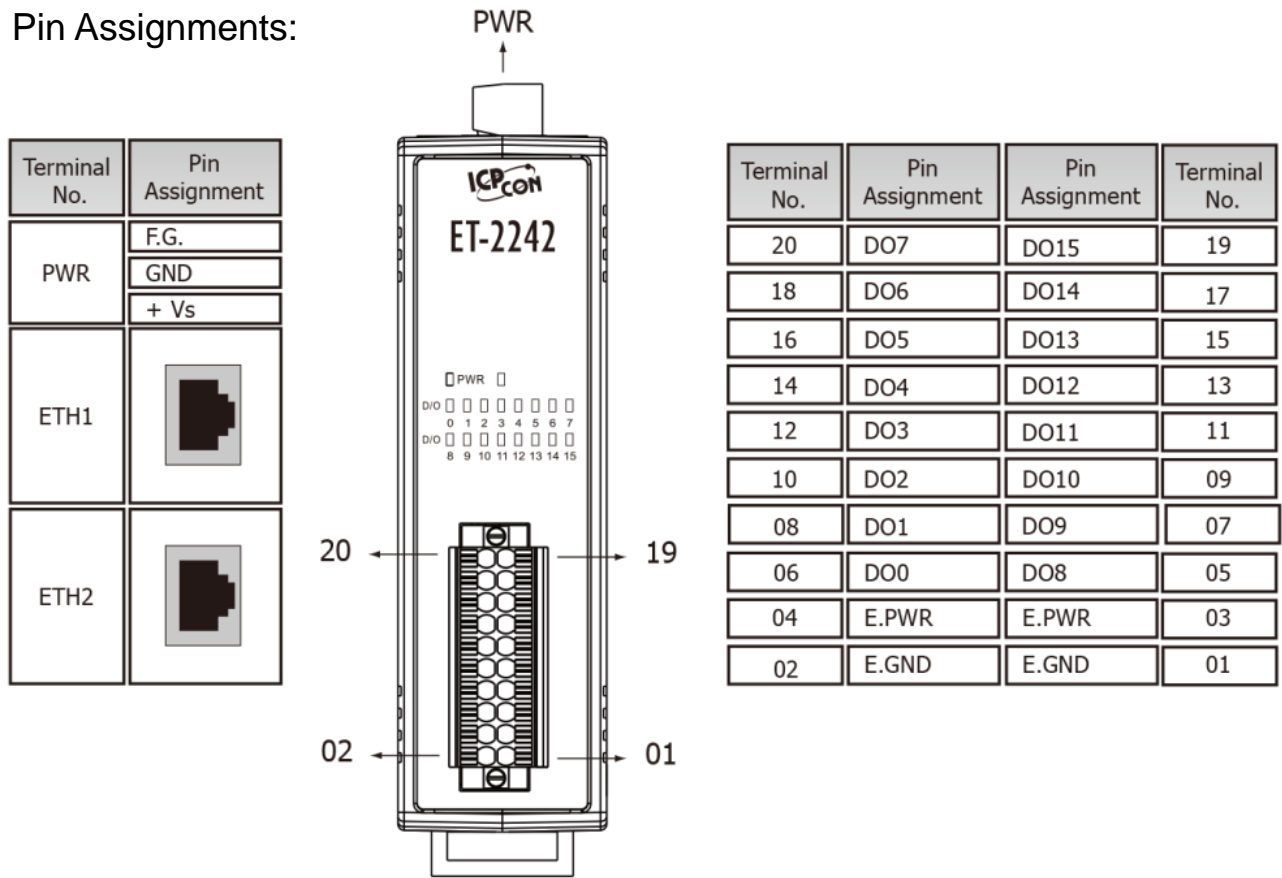
3) **Supply power (+10~+30 VDC) to the ET-2242.**

Ethernet Cable

GND

+24 VDC

Hub/Switch (e.g., NS-205)

Power Supply (e.g., MDR-20-24)

Host PC
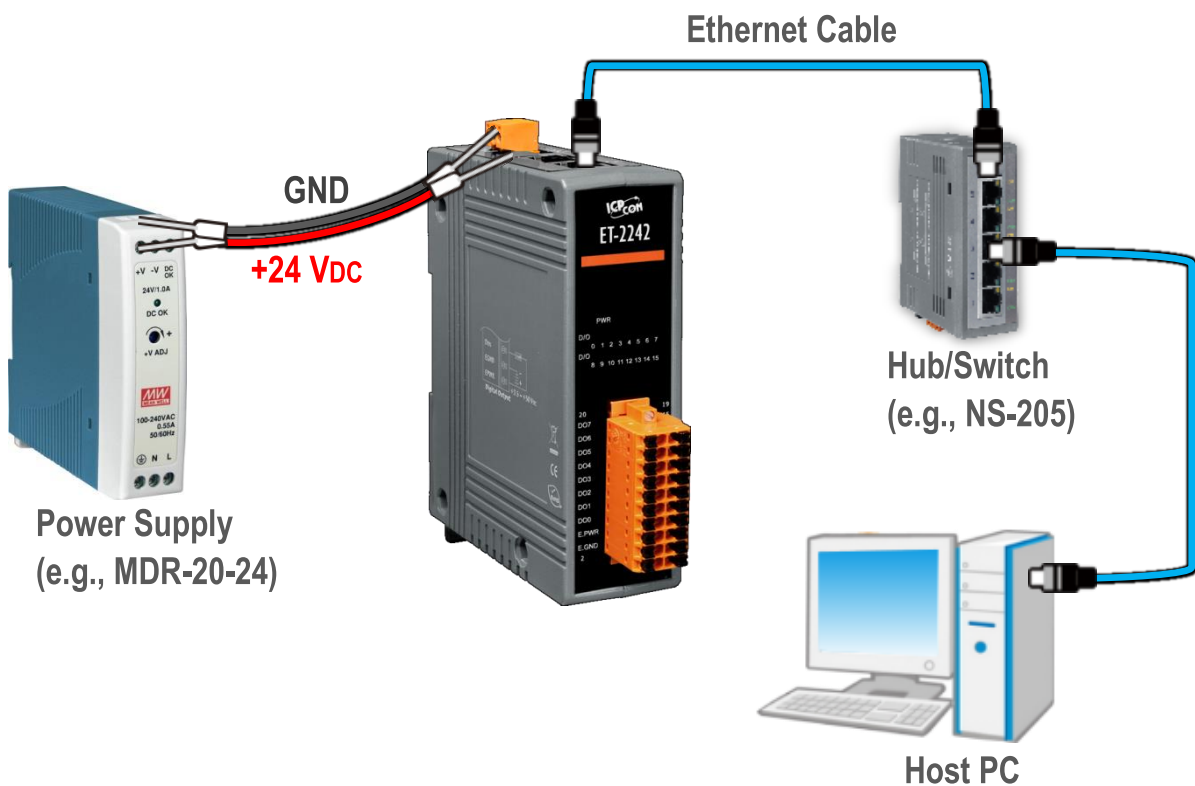
4) **Verify that the "PWR" LED indicator on the ET-2242 is flashing.**

Red, OK

2 Pin Assignments & Wiring Note

➢ Pin Assignments:

PWR

Terminal No.	Pin Assignment
PWR	F.G.
	GND
	+ Vs
ETH1	
ETH2	

ICP CON ET-2242

Terminal No.	Pin Assignment	Pin Assignment	Terminal No.
20	DO7	DO15	19
18	DO6	DO14	17
16	DO5	DO13	15
14	DO4	DO12	13
12	DO3	DO11	11
10	DO2	DO10	09
08	DO1	DO9	07
06	DO0	DO8	05
04	E.PWR	E.PWR	03
02	E.GND	E.GND	01

➢ Wire Connections:

Digital Output	Readback as 1 ON State	Readback as 0 OFF State
Drive Relay	DOx E.GND E.PWR	DOx E.GND E.PWR
Resistance Load	DOx E.GND E.PWR	DOx E.GND E.PWR

3 Wiring the DI and DO for Self-test

➢ **A tip for connecting the wire to the connector**

1. Use the blade of the flat-head screwdriver to push down the wire clamp.

2. While holding the screwdriver in place, insert the wire into the terminal block.

Insert the wire

Continue holding the screwdriver in place
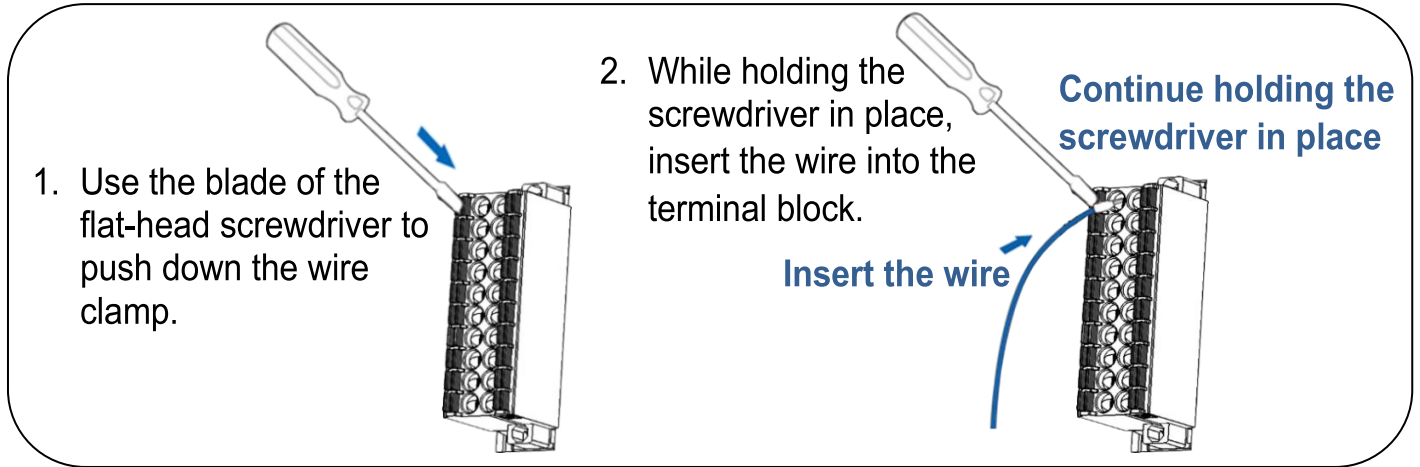
➢ **A tip for removing the wire from the connector**

1. Use the blade of a flat-head screwdriver to push down the wire clamp.

2. While holding the screwdriver in place, remove the wire from the terminal block.

Remove the wire

Continue holding the screwdriver in place
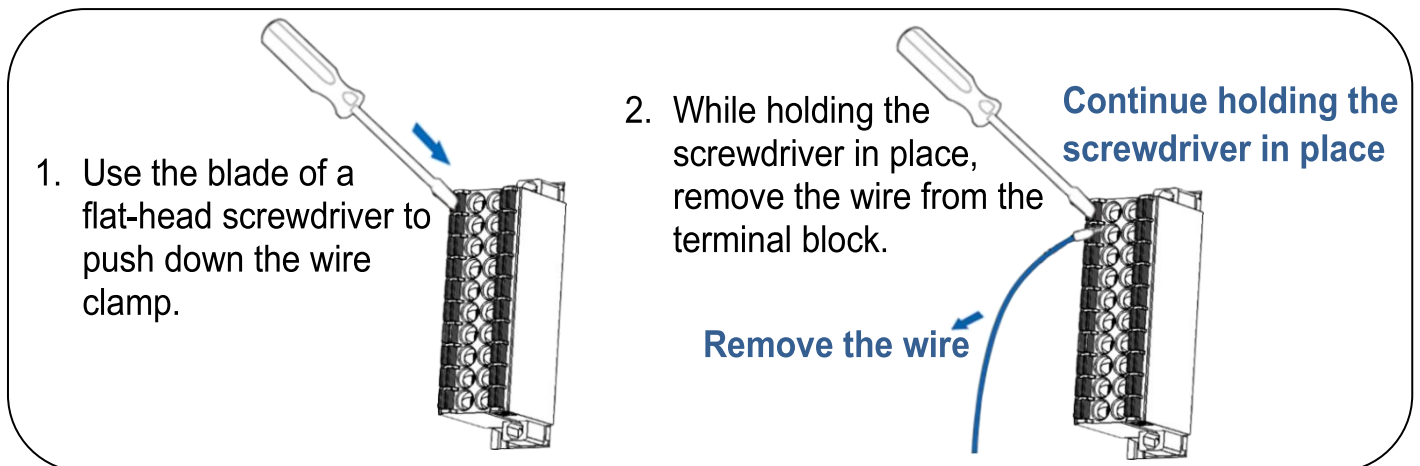
1) Use output LED to connect the **E.PWR pin (Pin04)** to the **DO0 pin (Pin06)**.

2) Connect the **External Power +24V** to the **E.PWR pin (Pin04)**.

3) Connect the **External Power GND** to the **E.GND (Pin02)**.

Power Supply
(e.g., MDR-20-24)

LED

R

+Vs

GND

06 — DO0
04 — E.PWR
02 — E.GND

ET-2242

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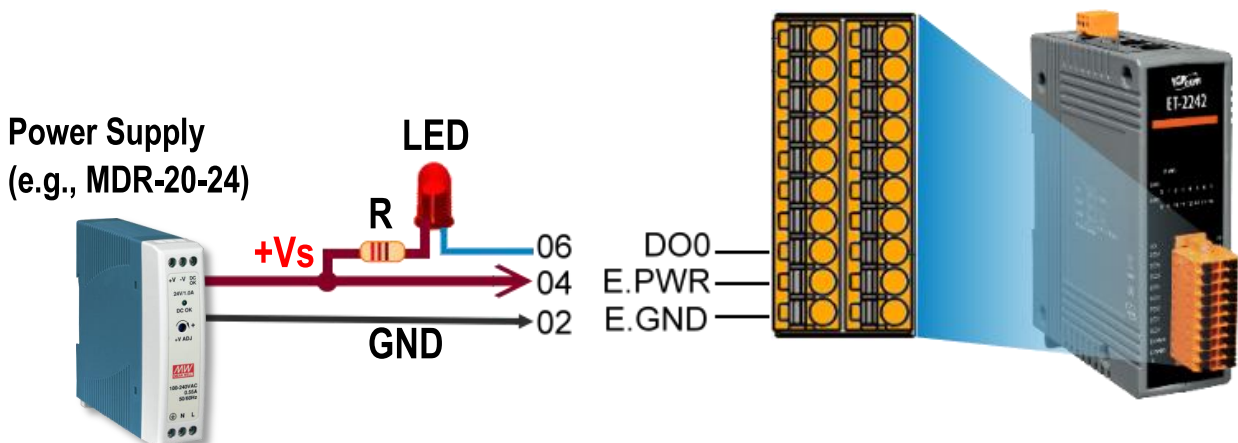
4 Modbus Address

The nDO parameters in the following Modbus Address Tables are as follows:

Mode Name	Universal DIO	Number of DO channels (nDO)	Number of DI channels (nDI)
ET-2242	-	16	-

➤ **(0xxxx) DO address:**

Begin address	Points	Description	Bits Per Point	Range	Access Type
0 (0x0)	1~nDO	Digital Output Channels	1	0: OFF 1: ON	R/W
60 (0x3C)	1	Saves specific data to Flash (The access type for some registers is labeled with an "**E**")	1	0: cannot be write 1:can be write	W
. . .	. . .	. . .	. . .	. . .	. . .
100 (0x21)	1~nDO	Enables the PWM for all DO Channels	1	0: OFF 1: ON (Default: 0)	R/W
235 (0xEB)	1~nDO	Sets the Power-on value for all DO Channels	1	0: OFF 1: ON (Default: 0)	R/W/F
267 (0x10B)	1~nDO	Sets the Safe value for all DO Channels	1	0: OFF 1: ON (Default: 0)	R/W/F

"**R**": Read, "**W**": Write, "**F**": Settings are recorded in flash by default,

"**E**": After writing DO[60] register, the data will be stored in flash.

⚠ **Note**

For detail "DI/DO Modbus Address" information, refer to Section 6.3 Modbus Register Table of user's manual (http://ftp.icpdas.com/pub/cd/6000cd/napdos/et2200/document/).

5 Configuring Network Settings

1) Run the eSearch Utility.

The eSearch Utility is located at:

http://ftp.icpdas.com/pub/cd/6000cd/napdos/software/esearch/
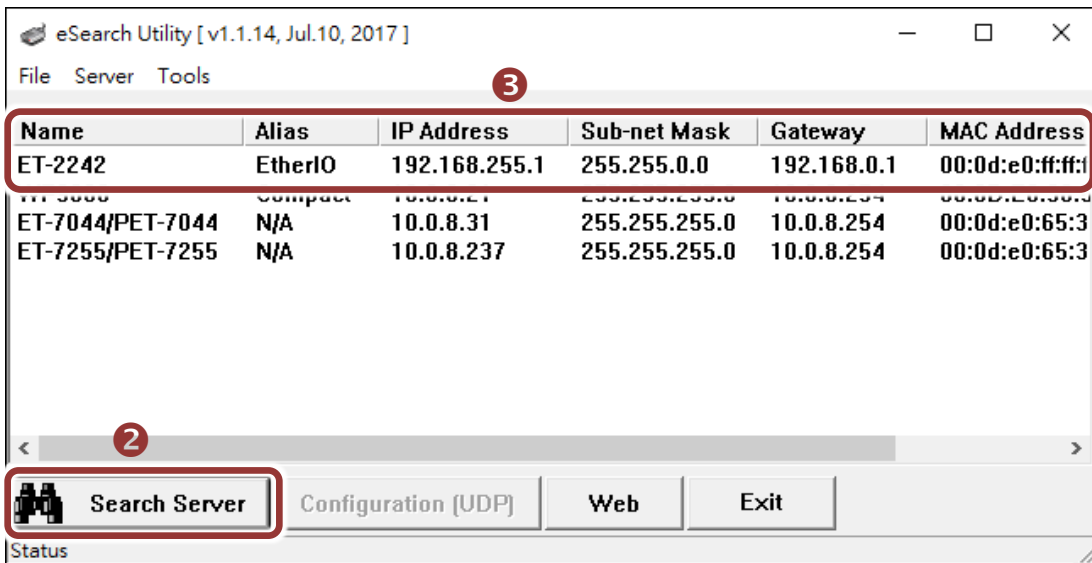
2) Click the **"Search Servers"** to search your ET-2242.

3) Double-click your ET-2242 to configure the settings

Factory Default Settings of ET-2242:

IP Address	192.168.255.1
Subnet Mask	255.255.0.0
Gateway	192.168.0.1

4) Contact your Network Administrator to obtain a correct network configuration (such as **IP/Mask/Gateway**). **Enter the network settings** and click **"OK"**. ⚠ **Note: The ET-2242 will use the new settings 2 seconds later.**


Technical support: service@icpdas.com
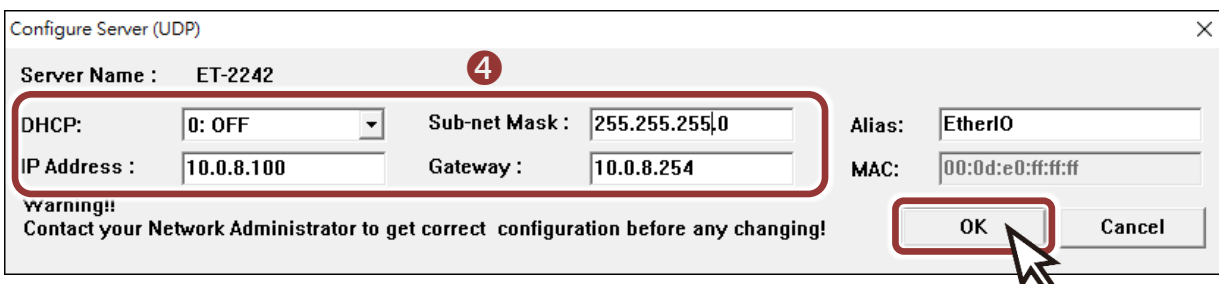
6 Testing your Ethernet I/O Module

1) Wait 2 seconds and click **"Search Servers"** button again to ensure the ET-2242 is working well with new configuration.

2) Click the name of ET-2242 to select it.

3) Click the **"Web"** button to log in to the web configuration pages.
(Or enter the URL address of the ET-2242 in the address bar of the browser.)
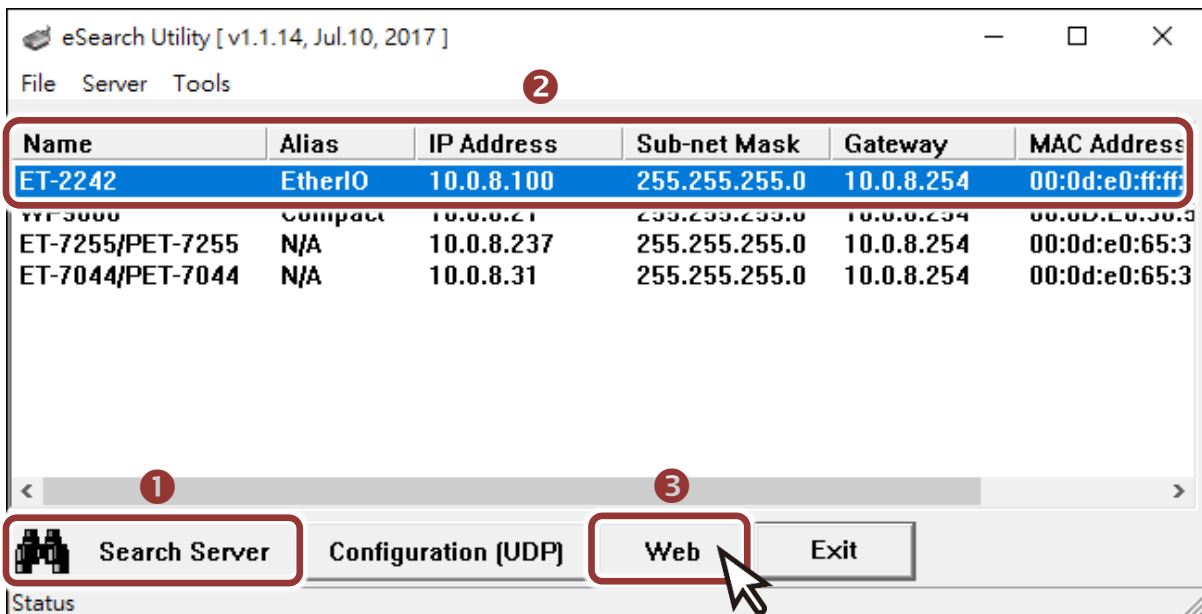
4) Enter the password (default: Admin)in the "login password" field and click **"Submit"**.
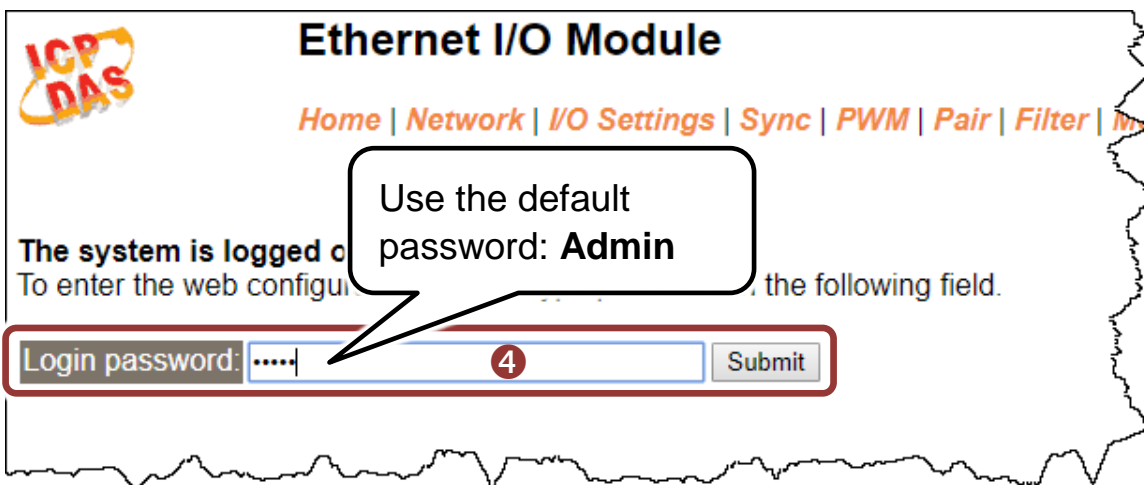
5) In the **"Home"** page allows a simple test to be performed to verify the Digital Input and Output functionality.

6) In the **"Digital I/O"** section, click the **"DO0"** button to **ON (Red)**.

7) Verify that the **output LED** status for **"high"**.