ET-2255U Quick Start

v1.2, Jun. 2018

What's in the box?

The package includes the following items:

ET-2255U 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


 Technical support: service@icpdas.com   P1

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-2255U and your PC to the same sub network or the same Ethernet switch.

3) Supply power (+10~+30 V$_{DC}$) to the ET-2255U.

Ethernet Cable

GND

+Vs

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

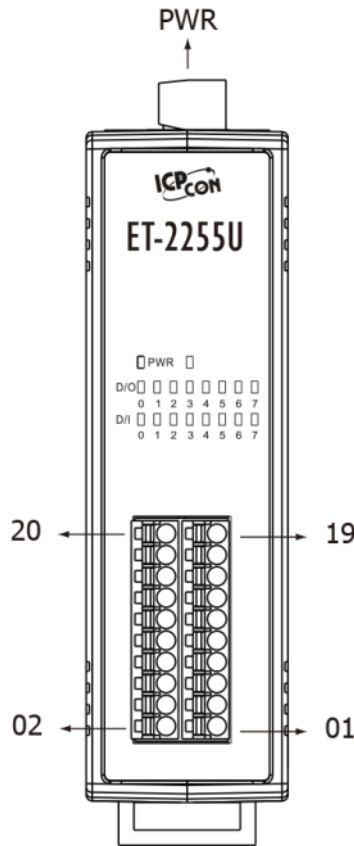Hub/Switch

Host PC
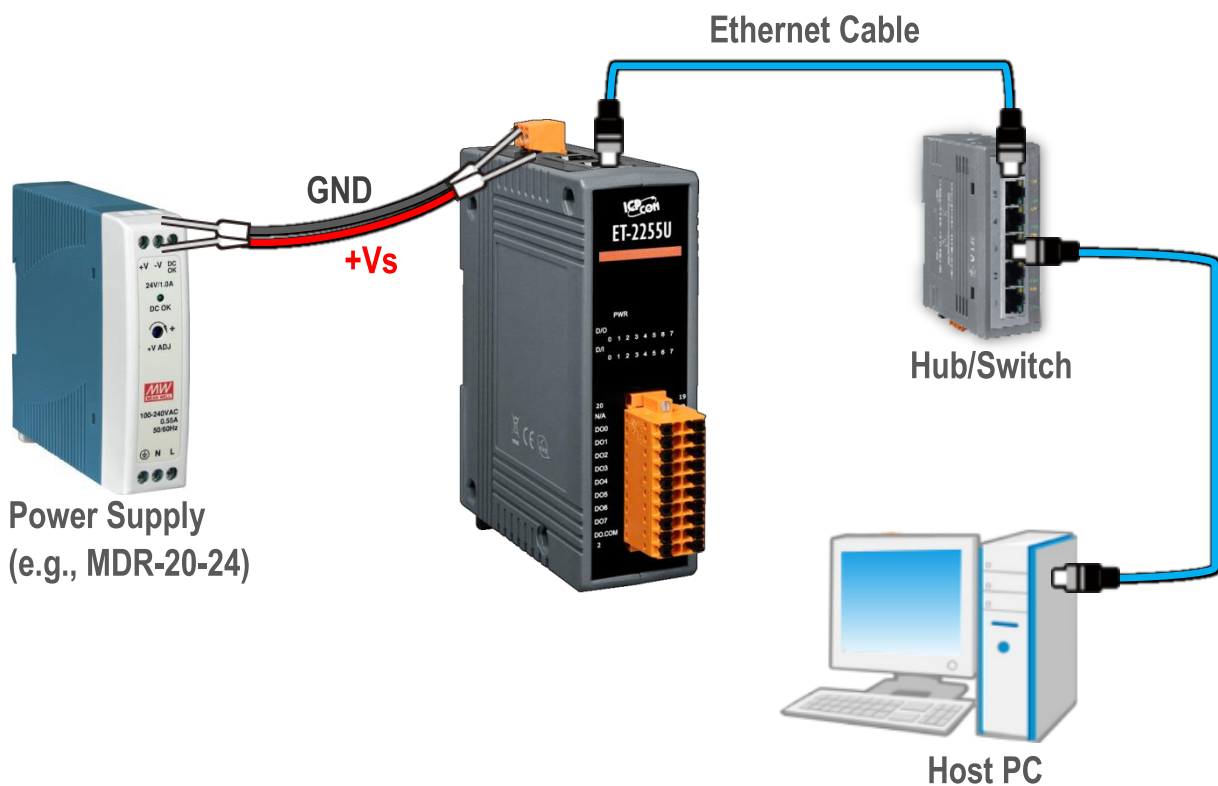
4) Verify that the "PWR" LED indicator on the ET-2255U is flashing.

Red, OK

PWR

2 Pin Assignments & Wiring Note

➢ Pin Assignments:

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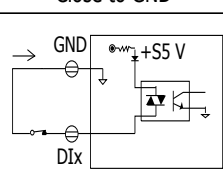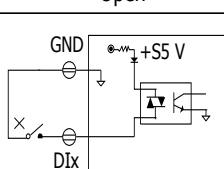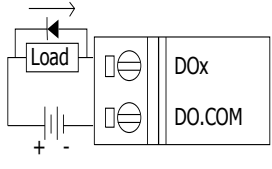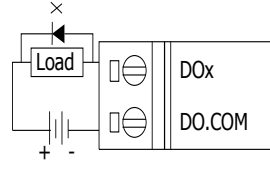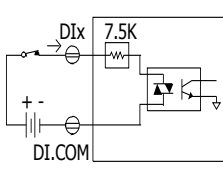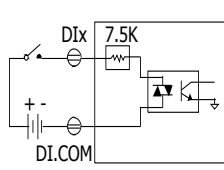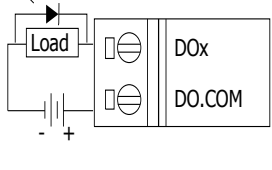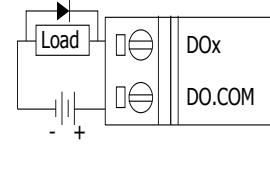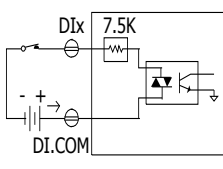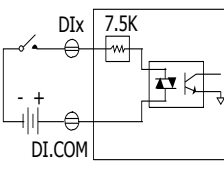
Terminal No.	Pin Assignment
PWR	F.G.
	GND
	+ Vs
ETH1	
ETH2	

ICP CON
ET-2255U

PWR
D/O 0 1 2 3 4 5 6 7
D/I 0 1 2 3 4 5 6 7

20 → | | ← 19
02 → | | ← 01

Terminal No.	Pin Assignment	Pin Assignment	Terminal No.
20	N/A	DI.GND	19
18	DO0	DI0	17
16	DO1	DI1	15
14	DO2	DI2	13
12	DO3	DI3	11
10	DO4	DI4	09
08	DO5	DI5	07
06	DO6	DI6	05
04	DO7	DI7	03
02	DO.COM	DI.COM	01

➢ Wire Connections:

Digital Input/ Counter	Readback as 1	Readback as 0
Dry Contact	Close to GND	Open
Sink	+5 ~ +50 V_{DC}	OPEN or <1 V_{DC}
Source	+5 ~ +50 V_{DC}	OPEN or <1 V_{DC}

Digital Output	Readback as 1 ON State	Readback as 0 OFF State
Sink		
Source		

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
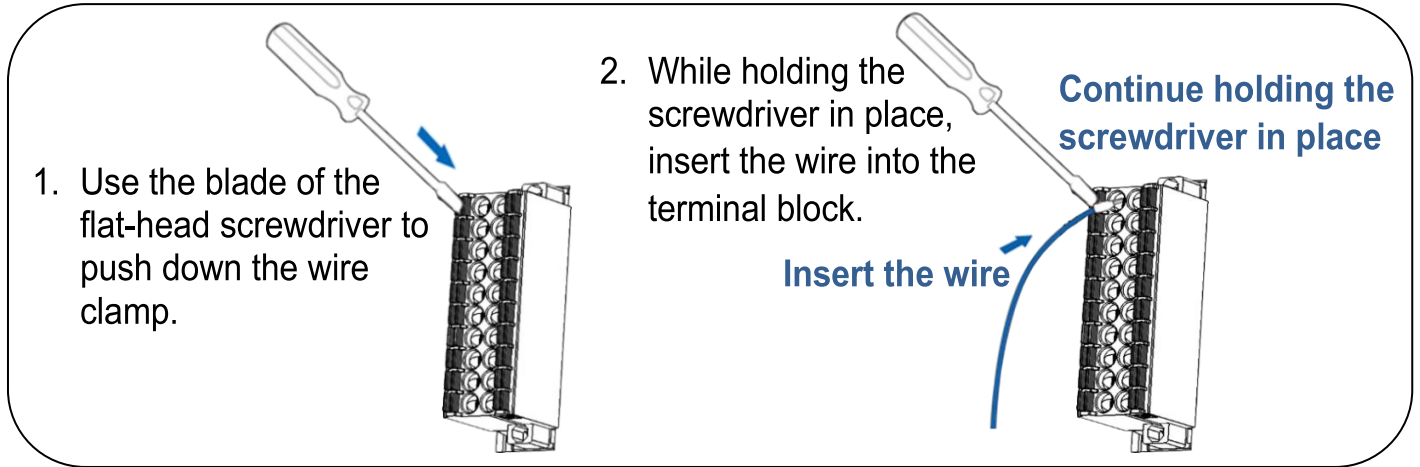
➢ **A tip for removing the wire from the connector**

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
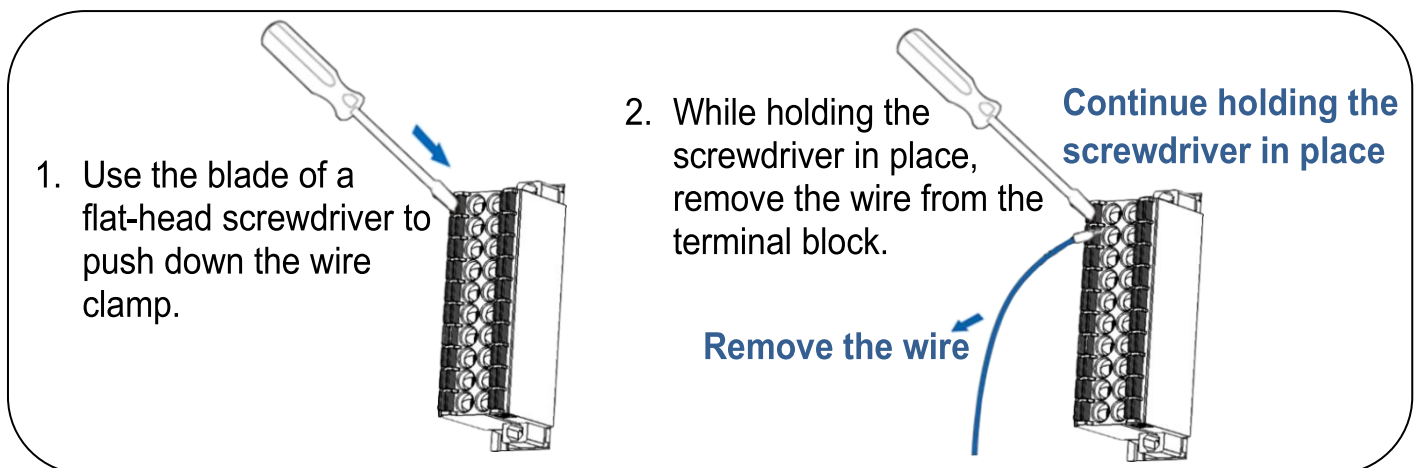
1) Connect the **DI0 pin (Pin17)** to the **DO0 pin (Pin18)**.
2) Connect the **External Power +24V** to the **DI.COM pin (Pin01)**.
3) Connect the **External Power GND** to the **DO.COM (Pin02)**.

DO0 18 —— 17 DI0

+Vs

GND

DO.COM 02 —— 01 DI.COM

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

ET-2255U

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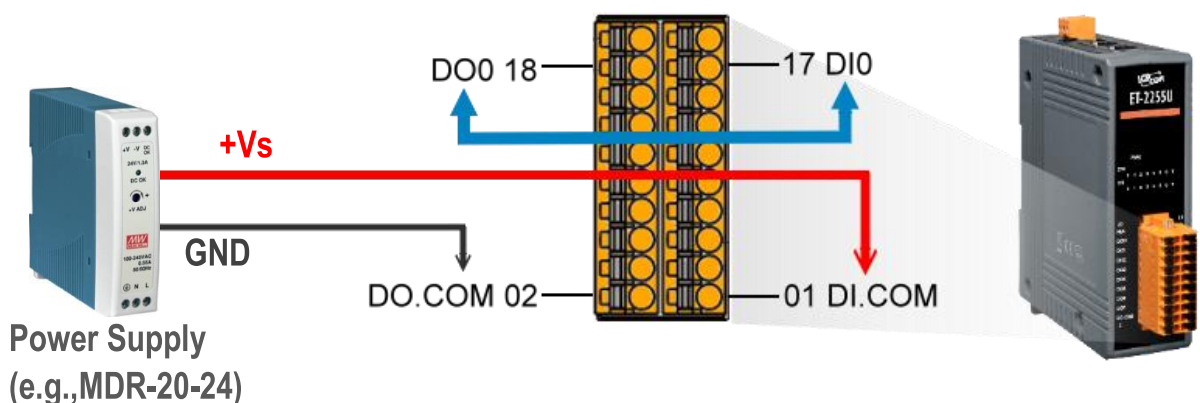
4 Modbus Address

➢ **(0xxxx) DO address:**

Begin address	Points	Description	Bits Per Point	Range	Access Type
0 (0x0)	1~6	Digital Output Channels	1	0: OFF, 1: ON	R/W
32 (0x20)	1	Clears the status of all high latched DI channels	1	1: Clear	W
33 (0x21)	1	Clears the status of all low latched DI channels	1	1: Clear	W
:	:	:	:	:	:
190 (0xBE)	1~6	Enables frequency measurement for all DI Channels	1	0: Disable 1: Enable (Default: 0)	R/W/F
235 (0xEB)	1~6	Sets the Power-on value for all DO Channels	1	0: OFF, 1: ON (Default: 0)	R/W/F
267 (0x10B)	1~6	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 memory by default

➢ **(1xxxx) DI address:**

Begin address	Points	Description	Bits Per Point	Range	Access Type
0 (0x0)	1~6	Digital Input	1	0:Off 1:On	R
32 (0x20)	1~6	Digital latched status (high)	1	0:no 1:latched	R
64 (0x40)	1~6	Digital latched status (low)	1	0:no 1:latched	R

"R": Read

⚠ **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/

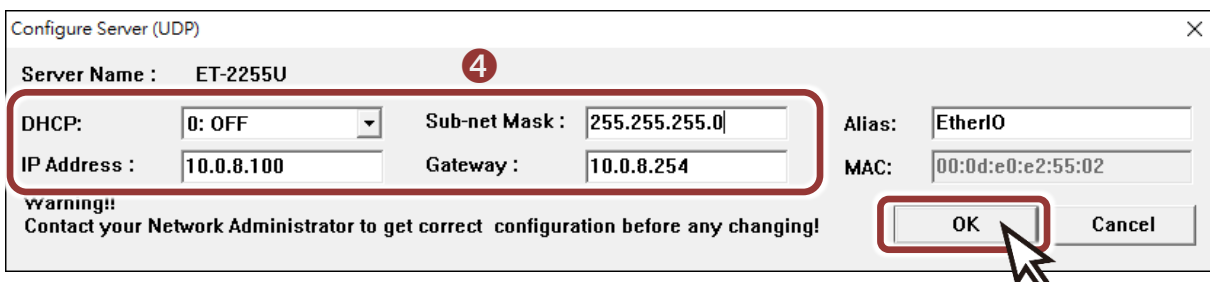**2)** Click the **"Search Servers"** to search your ET-2255U.

3) Double-click your ET-2255U to configure the settings
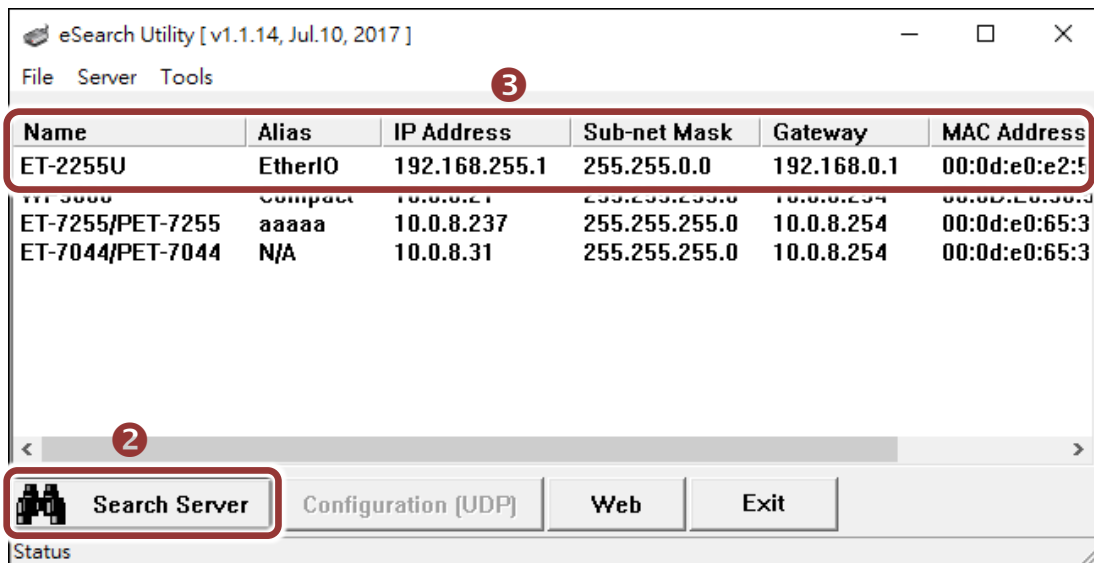
Factory Default Settings of ET-2255U:

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-2255U 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-2255U is working well with new configuration.

2) Click the name of ET-2255U to select it.

3) Click the **"Web"** button to log in to the web configuration pages.
(Or enter the URL address of the ET-2255U in the address bar of the browser.)
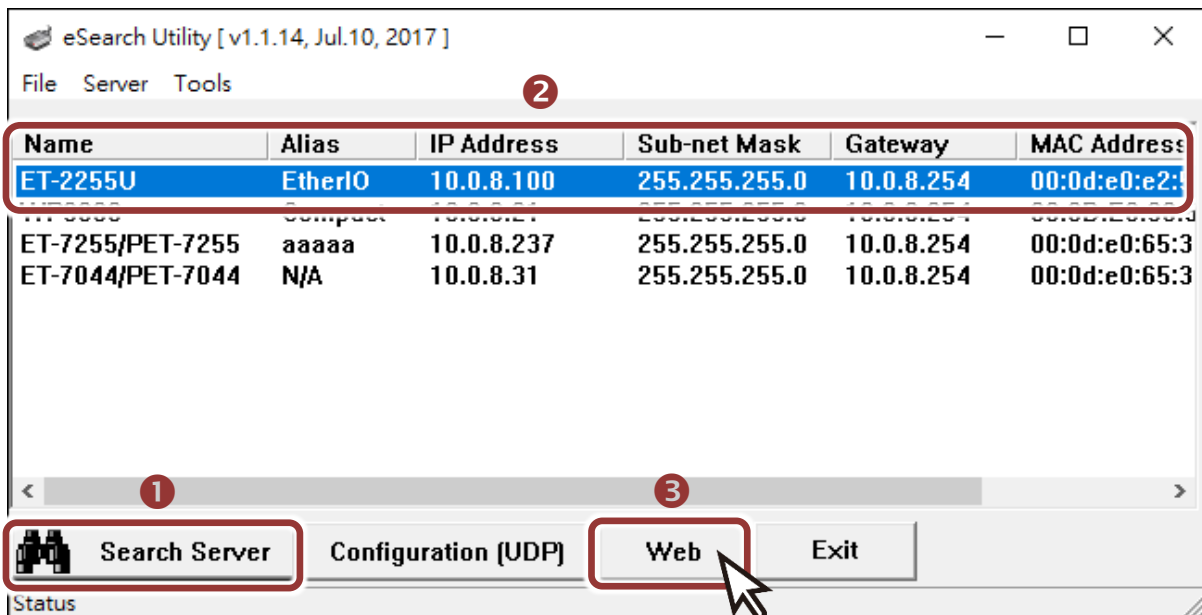
4) Enter the password (default: Admin) in the "login password" field and click **"Submit"**.
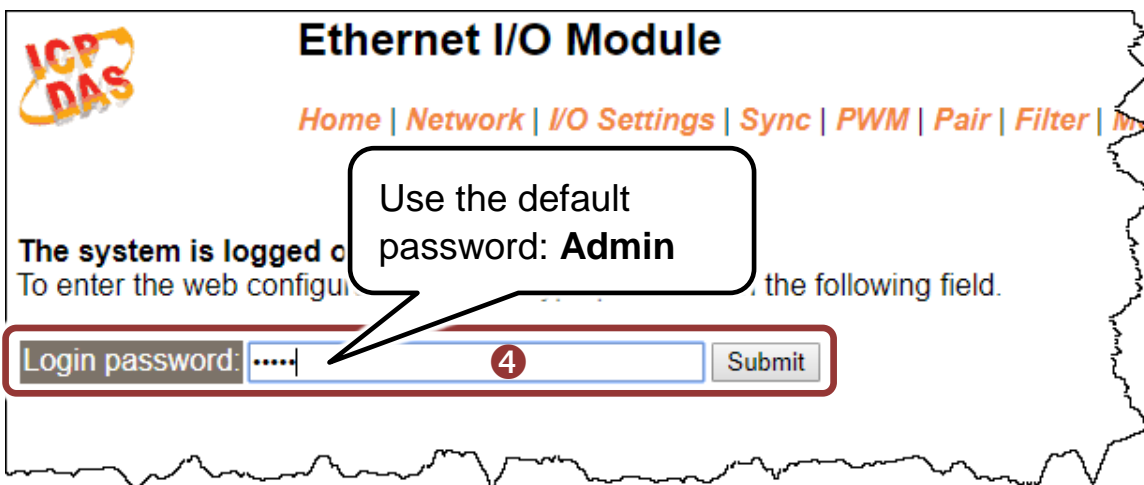
5) In the **"Home"** page allows a simple test to be performed to verify the Digital Input and Output functionality.

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

7) The corresponding DI becomes green for DI0 is ON.