ET-2251 Quick Start

What's in the box?

The package includes the following items:

ET-2251 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-2251 and your PC to the same sub network or the same Ethernet switch.
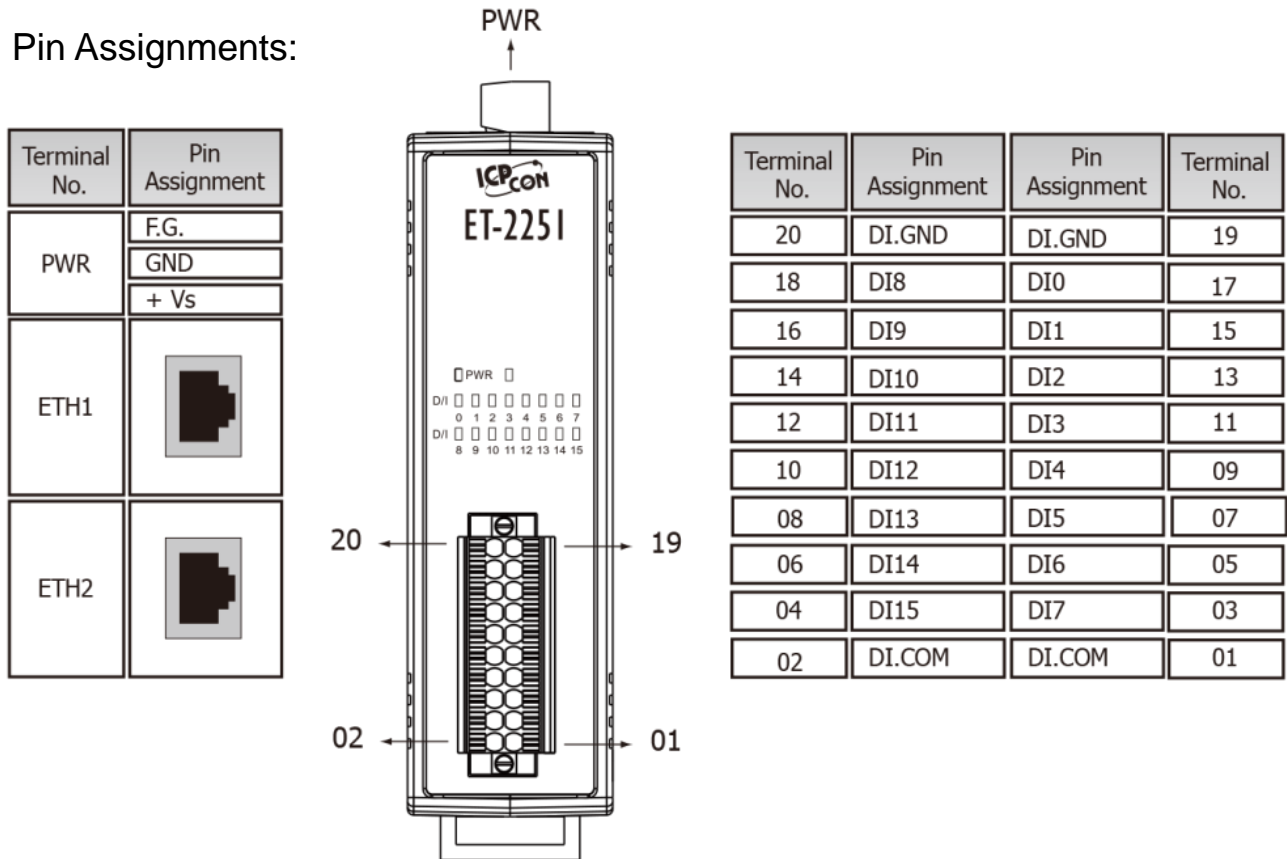
3) Supply power (+10~+30 V$_{DC}$) to the ET-2251.

Ethernet Cable

GND

+Vs

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

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

Host PC
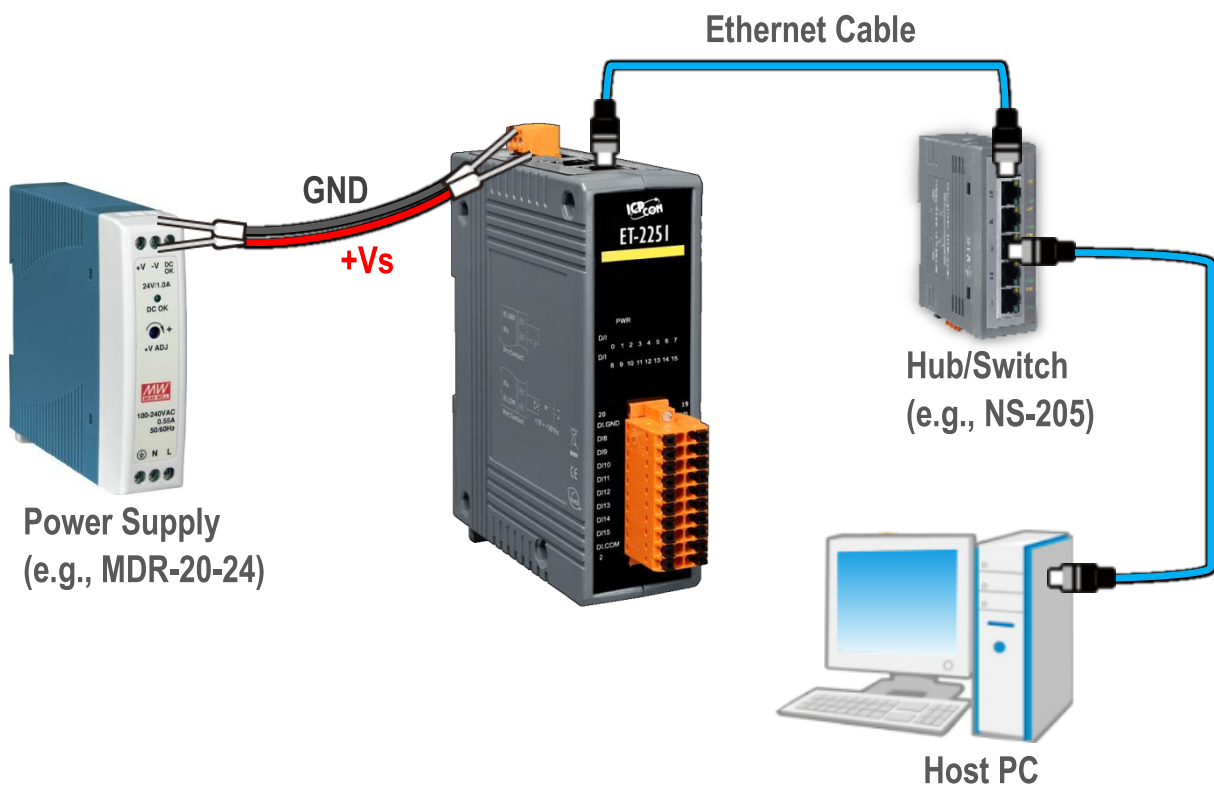
4) Verify that the "PWR" LED indicator on the ET-2251 is flashing.

Red, OK

PWR

2 Pin Assignments & Wiring Note

➢ Pin Assignments:

PWR

Terminal No.	Pin Assignment
PWR	F.G.
	GND
	+ Vs
ETH1	(RJ45)
ETH2	(RJ45)

ICP CON
ET-2251

PWR
D/I 0 1 2 3 4 5 6 7
D/I 8 9 10 11 12 13 14 15

20 ← → 19
02 ← → 01

Terminal No.	Pin Assignment	Pin Assignment	Terminal No.
20	DI.GND	DI.GND	19
18	DI8	DI0	17
16	DI9	DI1	15
14	DI10	DI2	13
12	DI11	DI3	11
10	DI12	DI4	09
08	DI13	DI5	07
06	DI14	DI6	05
04	DI15	DI7	03
02	DI.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}

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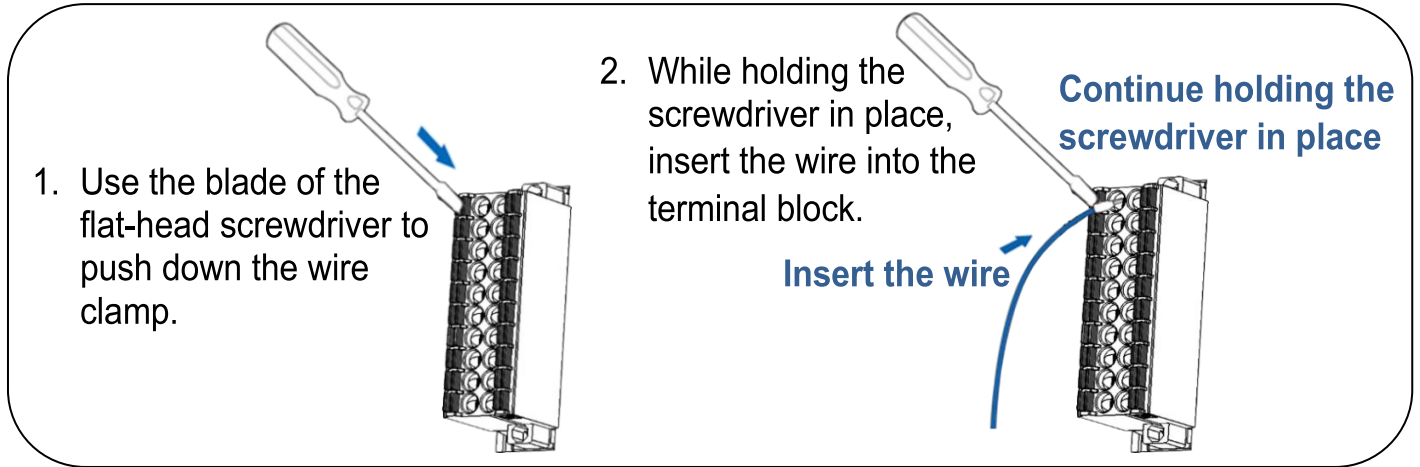
➢ **A tip for removing the wire from the connector**

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
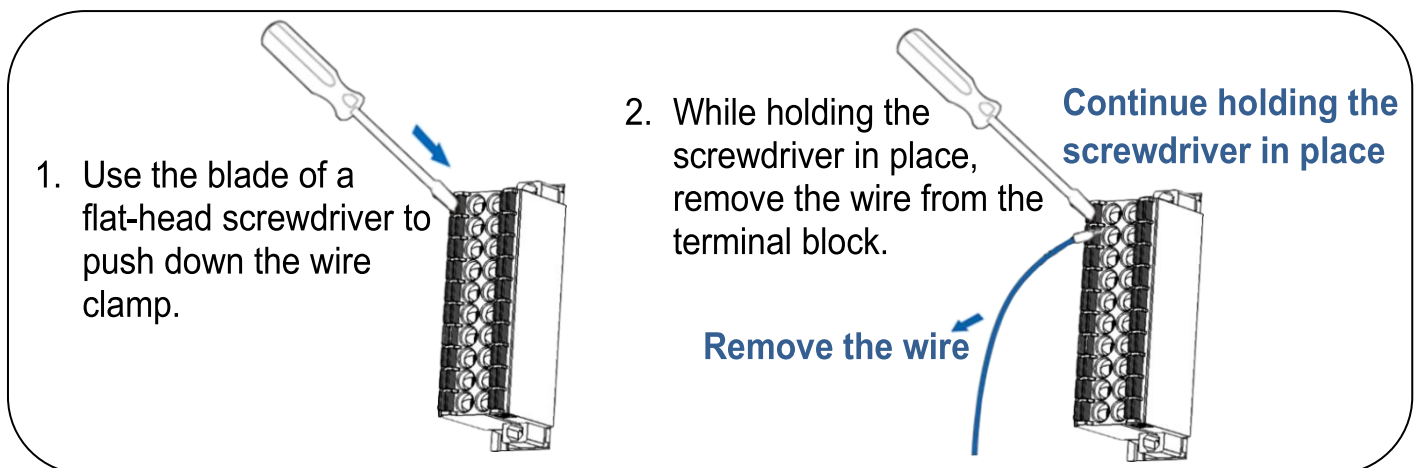
1) Connect the **DI0 pin (Pin17)** to the **DI.GND pin (Pin19)**.

DI.GND 19
DI0   17
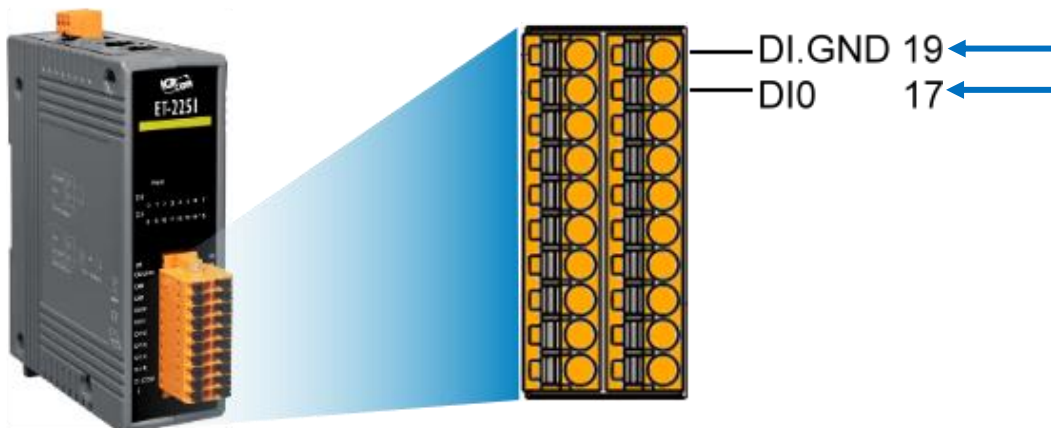
4 Modbus Address

> **(0xxxx) DO address:**

Begin address	Points	Description	Bits Per Point	Range	Access Type
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
:	:	:	:	:	:
150 (0x96)	1	Enables the high and low latches for all DI Channels	1	0: Disable 1: Enable (Default: 0)	R/W/F
151 (0x97)	1~16	Enables the high speed digital counter for all DI Channels	1	0: Disable 1: Enable (Default: 0)	R/W/F
190 (0xBE)	1~16	Enables frequency measurement for all DI Channels	1	0: Disable 1: Enable (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)	1~16	Digital Input	1	0:Off 1:On	R
32 (0x20)	1~16	Digital latched status (high)	1	0:no 1:latched	R
64 (0x40)	1~16	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-2251.

3) Double-click your ET-2251 to configure the settings
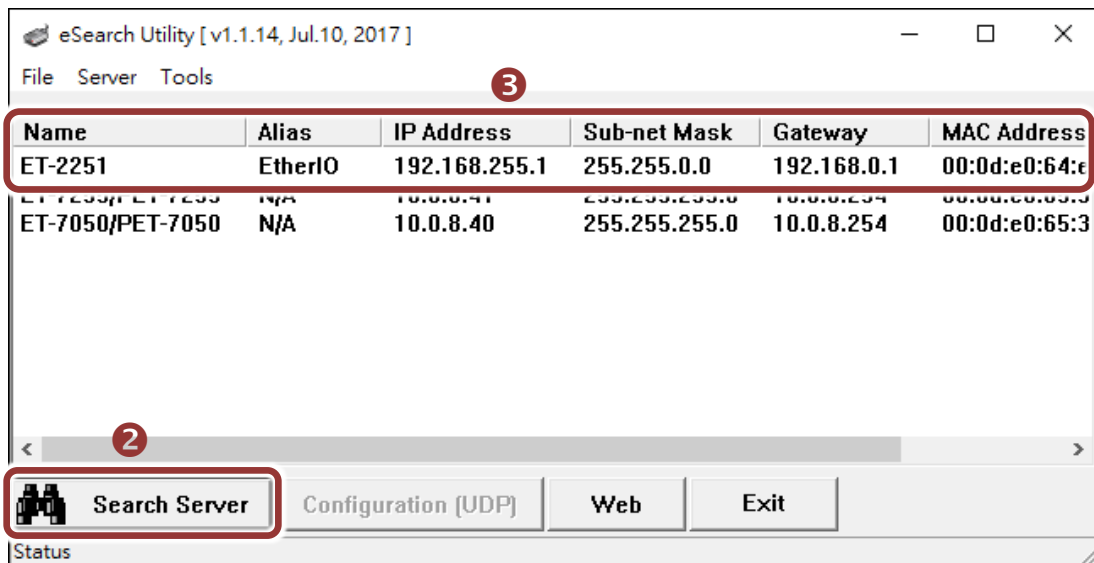
Factory Default Settings of ET-2251:

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-2251 will use the new settings 2 seconds later.**
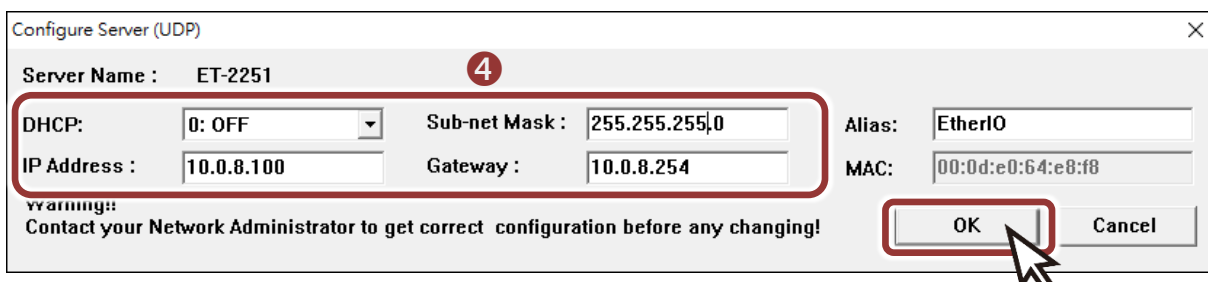
6 Testing your Ethernet I/O Module

1) Wait 2 seconds and click **"Search Servers"** button again to ensure the ET-2251 is working well with new configuration.

2) Click the name of ET-2251 to select it.

3) Click the **"Web"** button to log in to the web configuration pages. (Or enter the URL address of the ET-2251 in the address bar of the browser.)
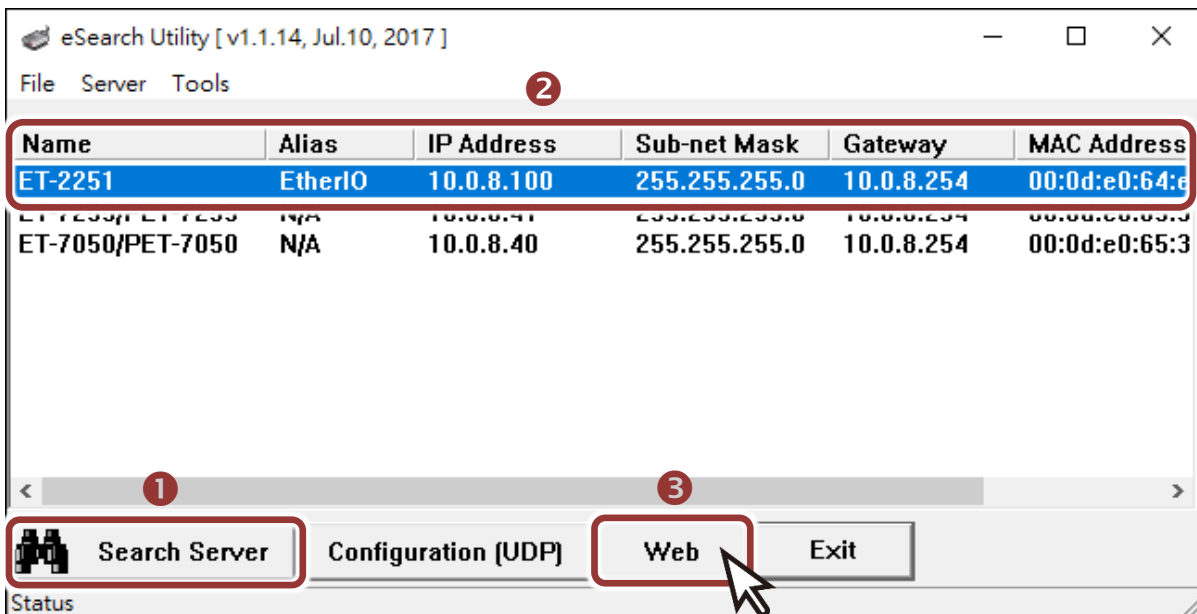
4) **Enter the password (default: Admin)**in the "login password" field and click **"Submit"**.
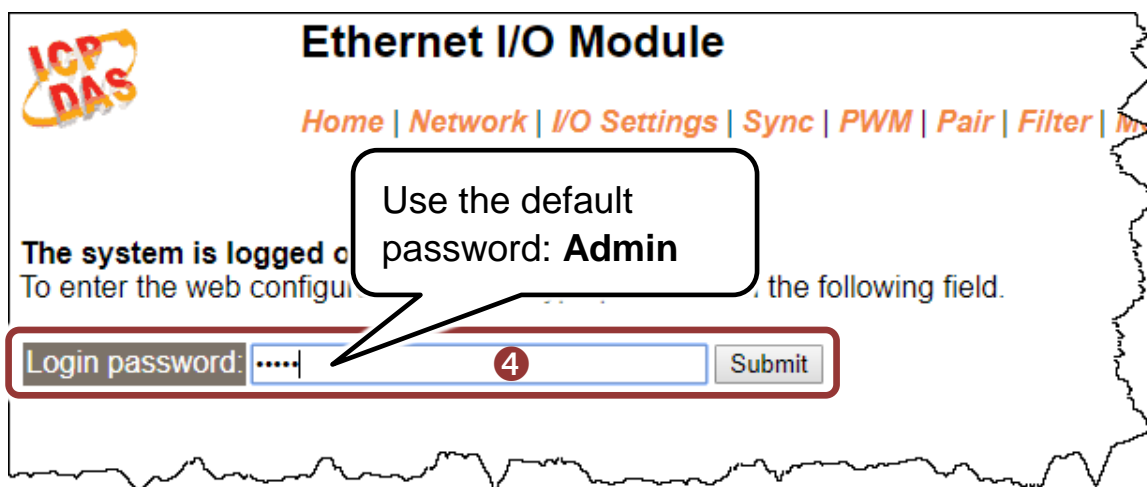
5) In the **"Home"** page allows a simple test to be performed to verify the Digital Input functionality.

6) In the **"Digital I/O"** section, verify that status for the both **DI0 is ON (green)**.