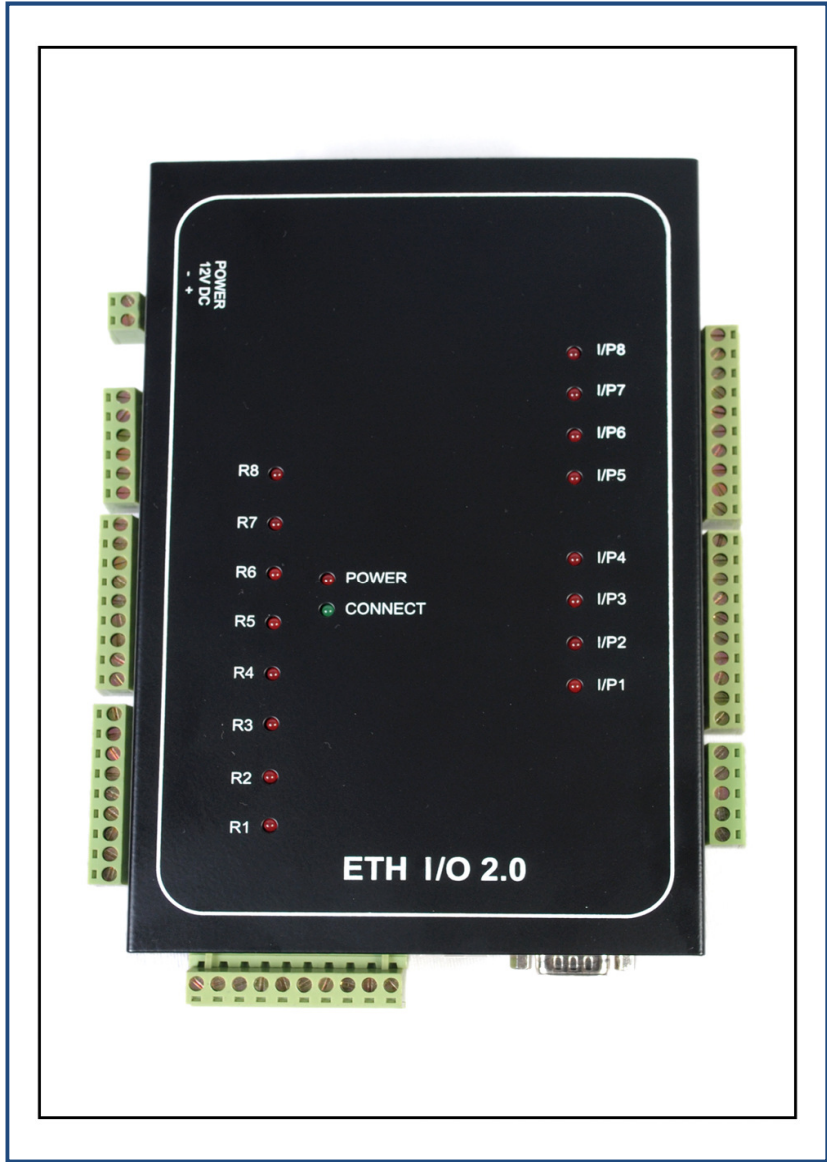# Connection Details

Digital Inputs: There are 8 isolated digital inputs. Digital inputs will work from 5V to 24V DC. Every input has LED indications on top. LED will be ON when proper input is provided.
Relay Outputs: There are 8 Relay outputs with dry contacts. NO, NC and Common terminal of relay are available on screw type connector. Every relay output has LED indication om top. LED will be ON when relay is switched ON.

Programming through Web browser:

In order to program ETH IO 2.0 using web browser, open a new web browser window in your computer from program like Internet Explorer, Mozilla Firefox, and Google Chrome etc. Enter 'http://192.168.0.154" or the correct IP Address of the unit in the browser address field and press the 'Enter' key. Enter the Password when prompted. **Default password is 77277**. Change the parameters of the unit like IP Number, Subnet Mask, and Gateway etc to meet the requirements of your Network as per your requirement.
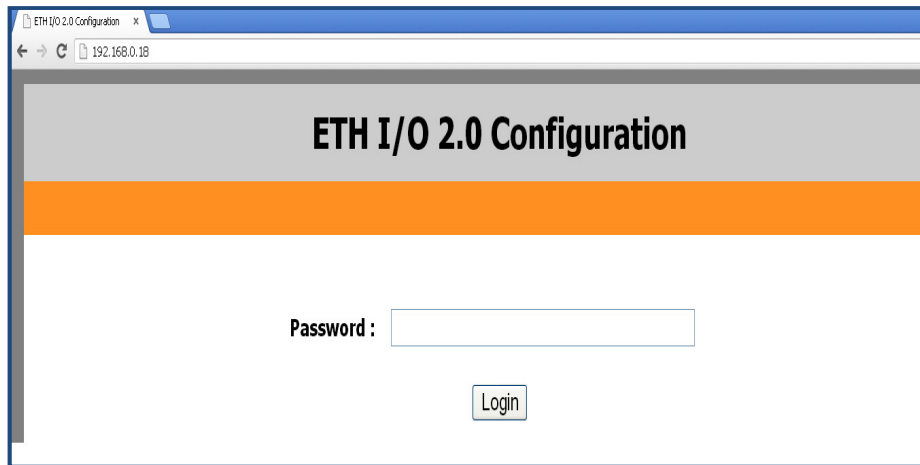
Please note that only Network Configuration of the unit can be programmed using the web browser.

For example: -

If the IP Number of the ETH IO 2.0 is 192.168.0.254 then you have to enter http://192.168.0.254 in the web browser address field and press 'Enter' Key.
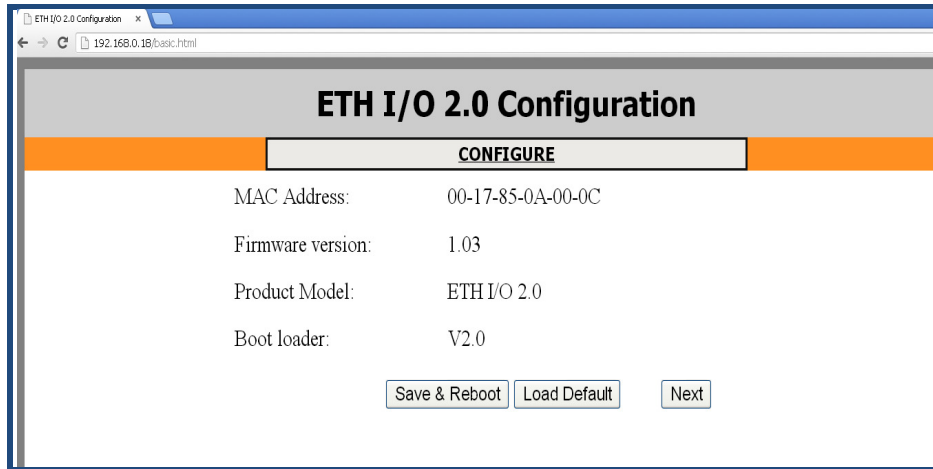
Please ensure that your computer is having the IP number in the same range as that of ETH IO or else change the same.

After changing the parameter value in any of the browsed page, you need to click on 'Update' button in the same page and ensure to press 'Save & Reboot' button. You can also set the unit to its default values by clicking on 'Load default' from any page and then click on save & Reboot.
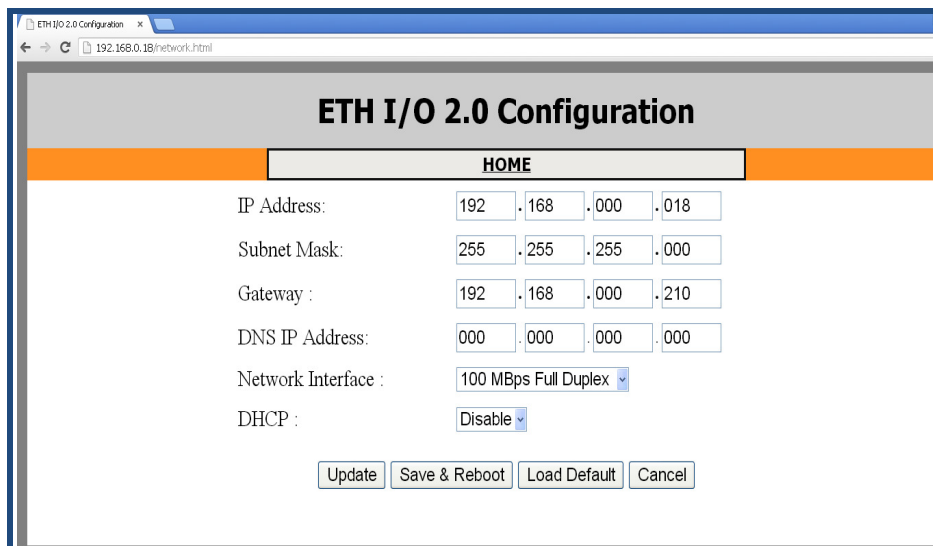

Figure4: ETH IO LOG-IN page in browser

Default login password is 77277. When you login it will display MAC Address, Firmware version, and Product Model and Boot loader details of the unit.

Figure5: ETH IO Home page in browser

User can proceed to configure the unit by clicking on CONFIGURE or Next option in the home page. Using this page you can configure IP address, subnet mask, gateway, Network Interface and DHCP. All these parameters are explained in detail later in the manual.

Figure6: ETH IO Configure page in browser

To configure other parameters one has to use either Serial RS232 port using terminal programs like Hyper terminal or using TELNET connection from any computer connected to the LAN.
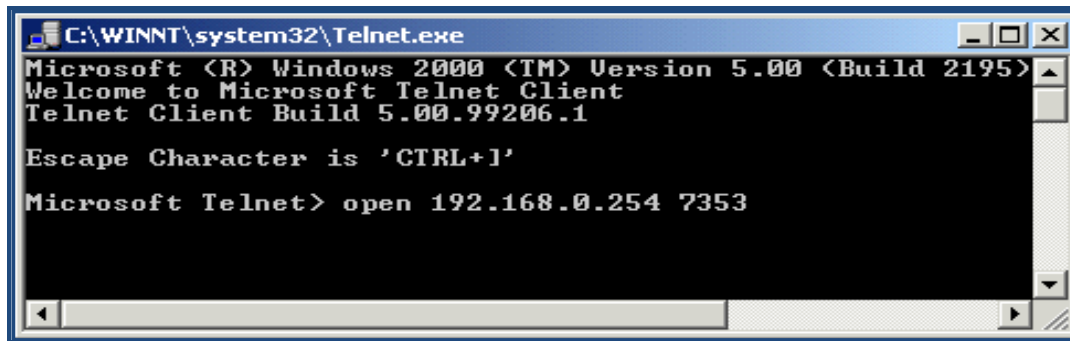
Programming through Telnet:

Before configuring the unit, ensure that ETH IO is connected to the LAN & configured properly by performing the Ping test from the command prompt of your computer.

C>Ping<space><IP address><space><-t>

If you are receiving proper ping response, then the unit IP is properly set and responding. You may proceed to configure the unit. If you do not receive proper ping response either the IP provided for pinging is different from the IP configured or the LAN cable is not inserted properly to the unit.

ETH IO-2.0 can also be programmed through Telnet program available in Windows. Open the Telnet program by typing Telnet in Start➔ Run➔ Open and select 'Connect as Remote System' from the Connect menu.

Enter the correct IP Address and the Port number of the ETH IO unit e.g. 192.168.0.254. The reserved Port number in ETH IO for configuration of the unit through Telnet is **7353.** Click on 'Connect' and enter the Password when prompted. Default password is **77277.**

Figure7: Connect through Telnet

You can directly enter the following command in run window: **Telnet<space><IP address><space><7353>**

Change the parameters as per your choice. For detailed description on parameters of ETH IO, see later section.

The telnet command and options screen will look same under Windows 2000 and XP where one will use > open 192.168.0.254 7353 after issuing Telnet command in the Run. You can also use programs like Hyper Terminal or Putty if the operating system does not support Telnet or enabled.

Configuration for I/O tunneling

1) Configure the free IP address of the network and Gateway IP from the "Network Configuration" item of the main menu.
2) Configure the "Remote ETHIO IP" and "Remote ETHIO Port" from the Server Configuration option of the main menu.
   Where Remote ETH IO IP is the IP address of ETH IO with which tunneling is to be established. Configure Remote ETH IO Port as "80" which is the default local Port number of the other side ETH IO device.
3) Exit from the "Server Configuration" to main menu, Save and Exit to save the configured parameters.
4) After Exiting device will reboot and Connect LED will start blinking. It shows that device is connected with remote device.
5) Similarly configure the remote ETH IO device also.

Quick Test:
1) Change the input status of the any one input and check that corresponding LED is glowing.
2) Check respective relay LED is ON in the remote ETH IO.