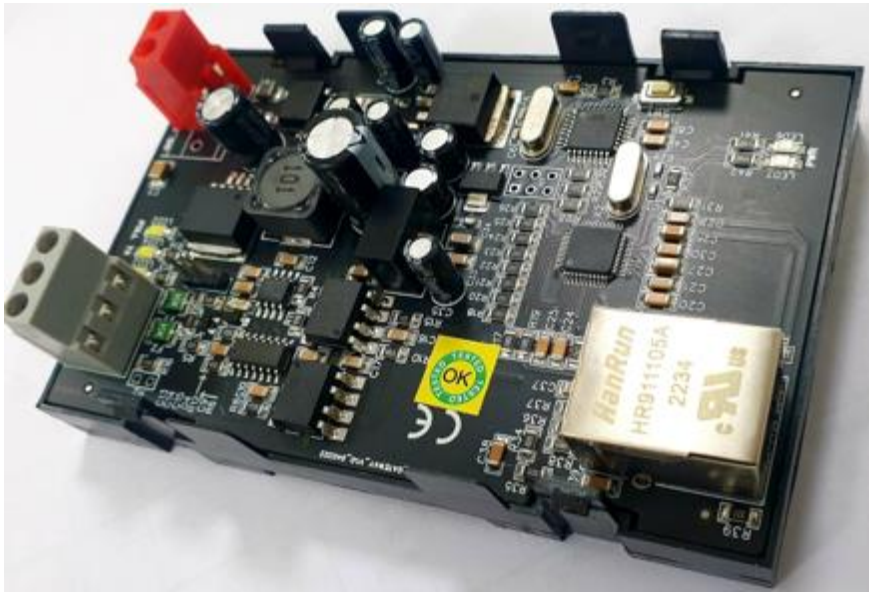
# Technical Datasheet Input / Output Module - Modbus RTU Protocol to Modbus TCP Protocol

The IO modules communicate via RS485. The port can drive distances up to max 700 meters without the use of any repeater (*this feature however also depends on the signal strength of the Modbus Slave Device).*
The 1 Port Modbus RTU RS485 to Modbus TCP Ethernet module is sturdy, low power usage and easy to use.

## 1 Port Modbus RTU – 1 port Modbus TCP Module: -



This converter module is DIN rail mountable and FR grade.

The design of the modules incorporates '**resettable Fuses**' to safeguard against reverse polarity connection both for **Power** and **Communication** port.

## Specifications

### General –

| | |
|---|---|
| **I/O Connectors** | 2 Pin 5.08 mm pitch pluggable screw terminals. |
| **Dimensions** | 70 mm L x 110 mm B x 50 mm H |
| **Power** | Input Power – 24 AC / DC |
| | Typical Power Consumption – 5W |
| **Operating Temperature** | 0 – 60° C (32 ~ 140°F) |
| **Storage Temperature** | -20 - 70° C (-4 ~ 158°F) |
| **Storage Humidity** | 5 ~ 95 % RH, non – Condensing |

**Certifications**

**Modbus RTU –** This side acts as a **'Modbus Master'** for connecting Slave devices over Modbus RTU RS485.

**No of Devices** Up to 12 Slave devices in **Daisy chain**

**Modbus TCP -** This side acts as a slave for the Host Device like the Gateway etc.
Web Interface for Easy configuration and connection

## Additional Features: -

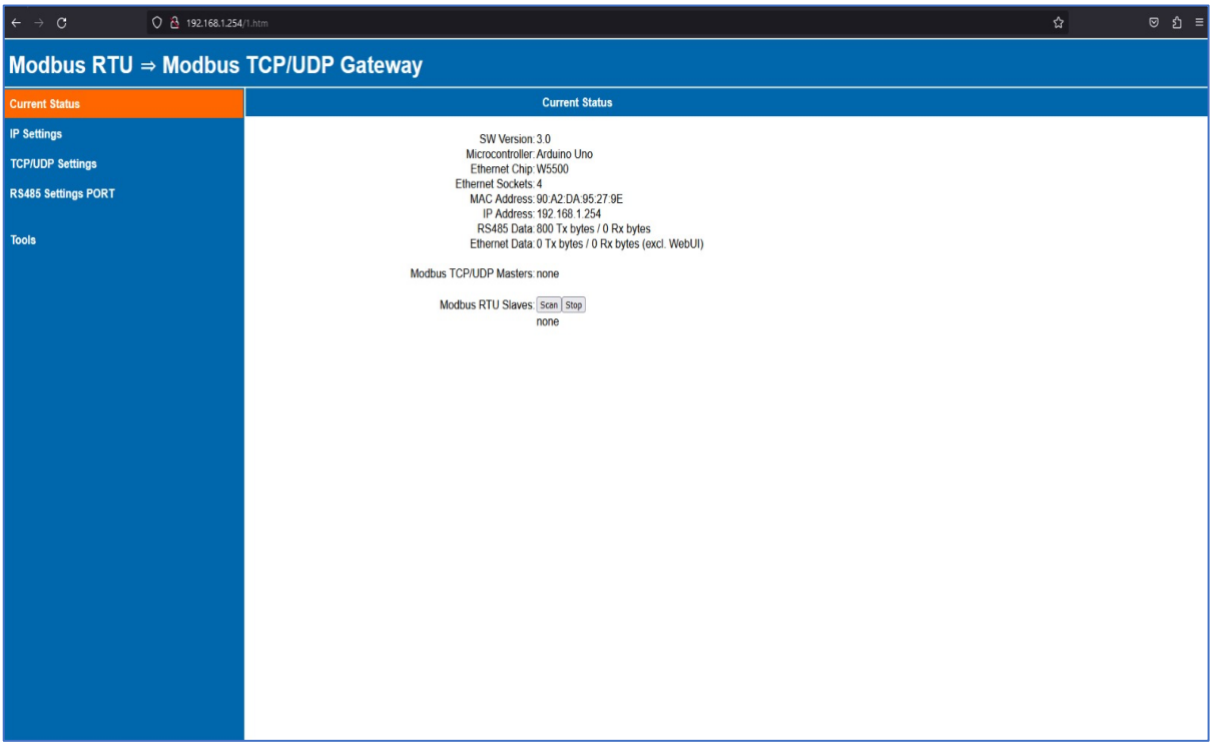
**Communication Port isolated**
**Input power reverse polarity safety**
**ESD Safety IEC 61000-4-2, ± 30KV contact, ± 30KV air**
**EFT IEC 61000-4-4, 50A (5/50ms)**
**750V isolation.**
**CRC Error check.**

## Configuration Settings: -

- Connect 24 V AC/DC Supply to the Module.
- Connect MODBUS RTU Multiple Slave devices or Single devices to the A & B Terminal of Module.
- Connect MODBUS TCP Network Ethernet Cable to the Ethernet port of the module.
- Default IP Address of Module is "192.168.1.254".
- After connecting we are ready to simulate the RTU to TCP Conversion.
- Please enter "192.168.1.254" on your browser, make sure your device should in the same network of Module.
- After Entering above IP Address, you will find a webpage which has 5 pages for Configurations.

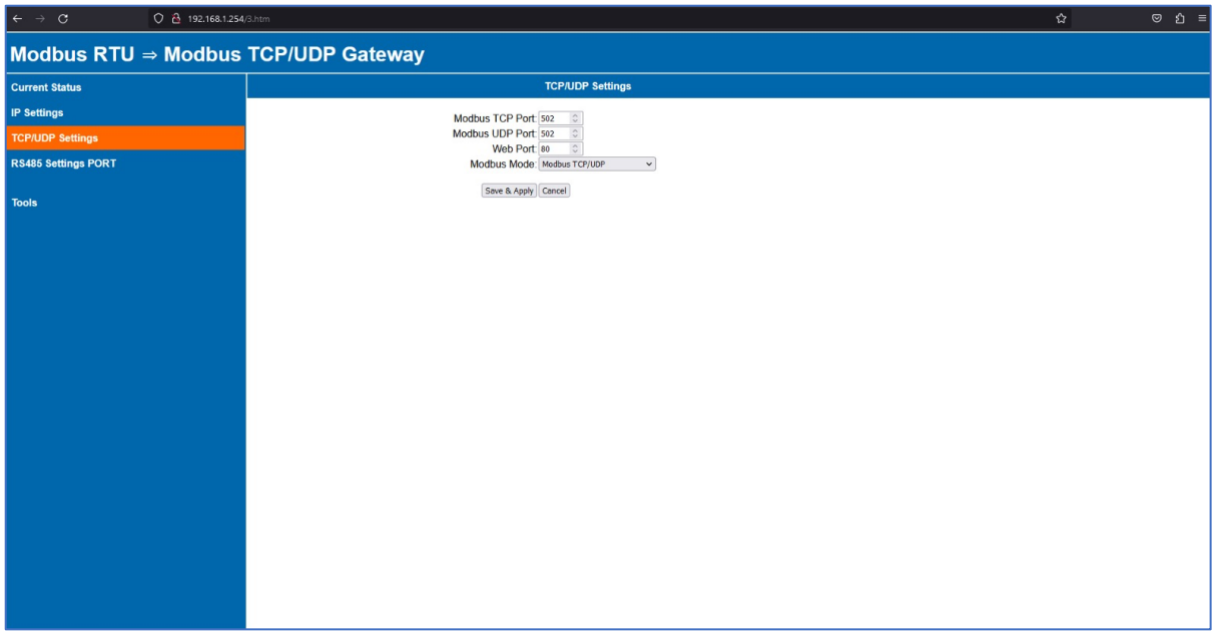
## Page Number 1

- On First page will get Current Status Information of module.
- MAC, IP, Ethernet Sockets, Ethernet chip, Ethernet Data are available on First page.
- Available Networked TCP/UDP Masters and a Scanner for Available RTU connected slave addresses will be printed on the page.
- One left Selection panel you can get other page information.
- IP Address Settings, TCP/UDP Settings, RS485 Settings and available Tools are placed on Left Selection Panel.




## Page Number 2

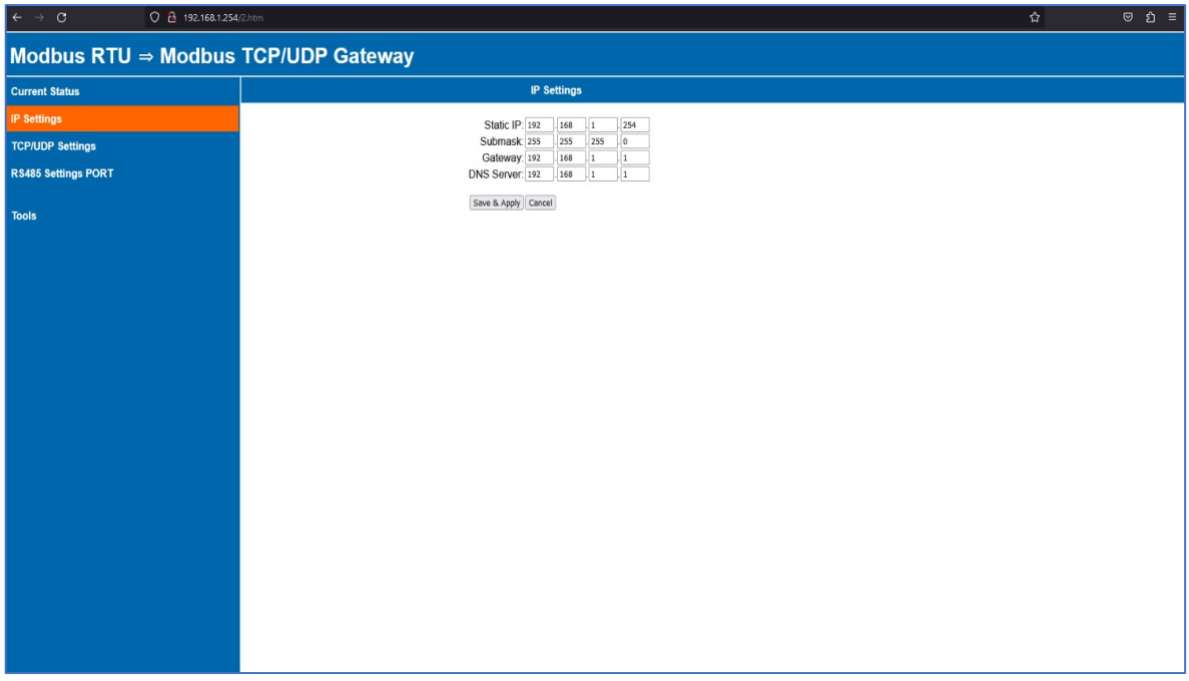
- Second page is setup for custom user IP address settings.
- User can input custom IP, Gateway, Subnet & DNS.

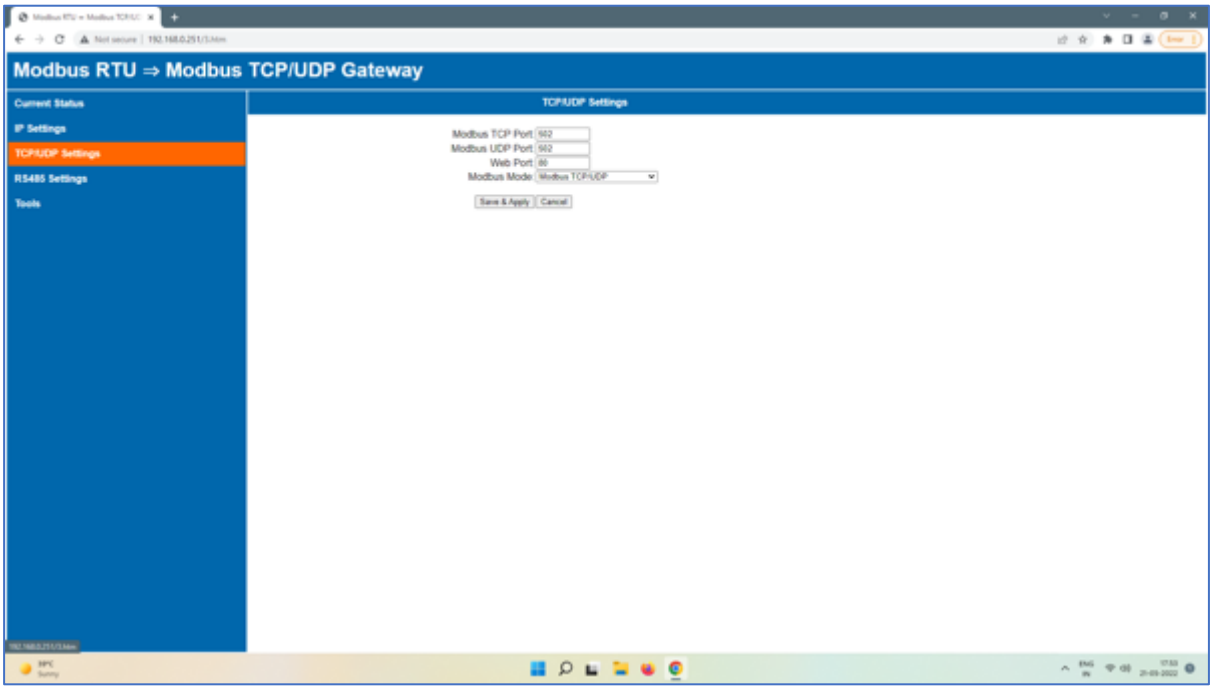



## Page Number 3

- Third Page is setup for TCP/UDP Settings Configuration.
- TCP Port, UDP Port & Web Port can be set from this page.
- Modbus Selection can be done from third page.
- Modbus Mode:

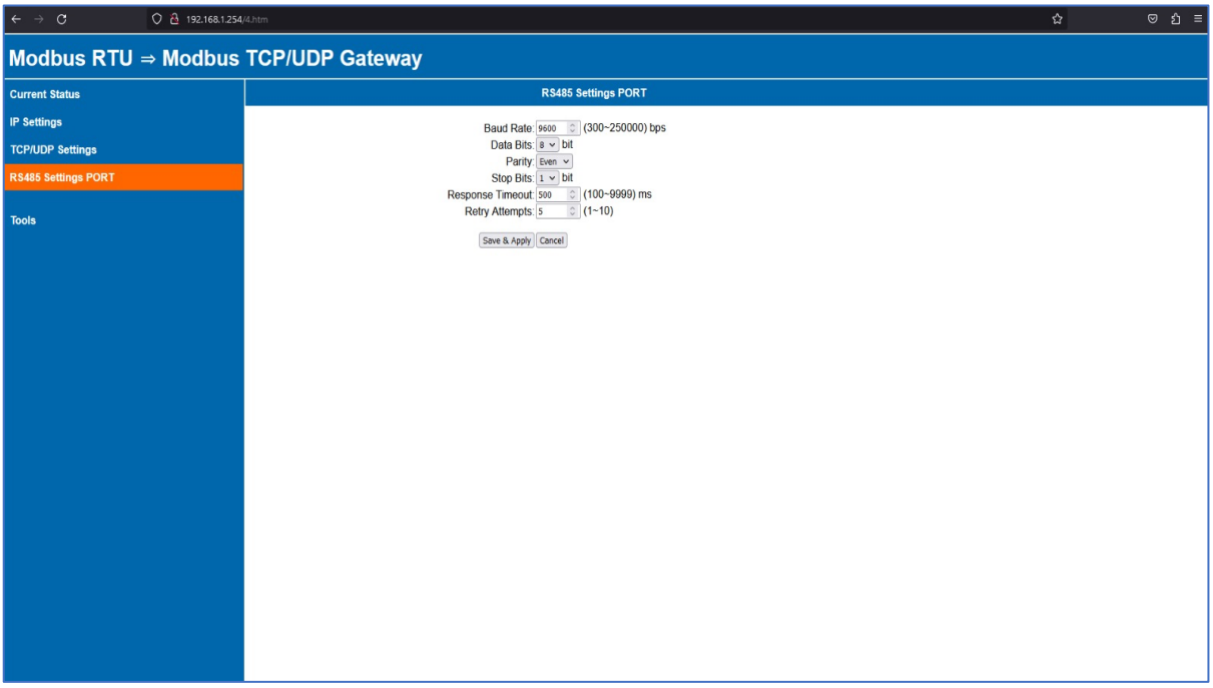
1) Modbus TCP/UDP
2) Modbus RTU over TCP/UDP






## Page Number 4

- On fourth page RS485 configuration can applied by user.
- Baud rate selections, Data Bits, Parity, Stops Bits, Response timeout, retry attempts are configured on this page.



## Page Number 5

- Fifth page is Tools Page.
- It gives user to set Factory Default settings, MAC Address Generation, & System Reboot.


## Converter with Enclosure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