

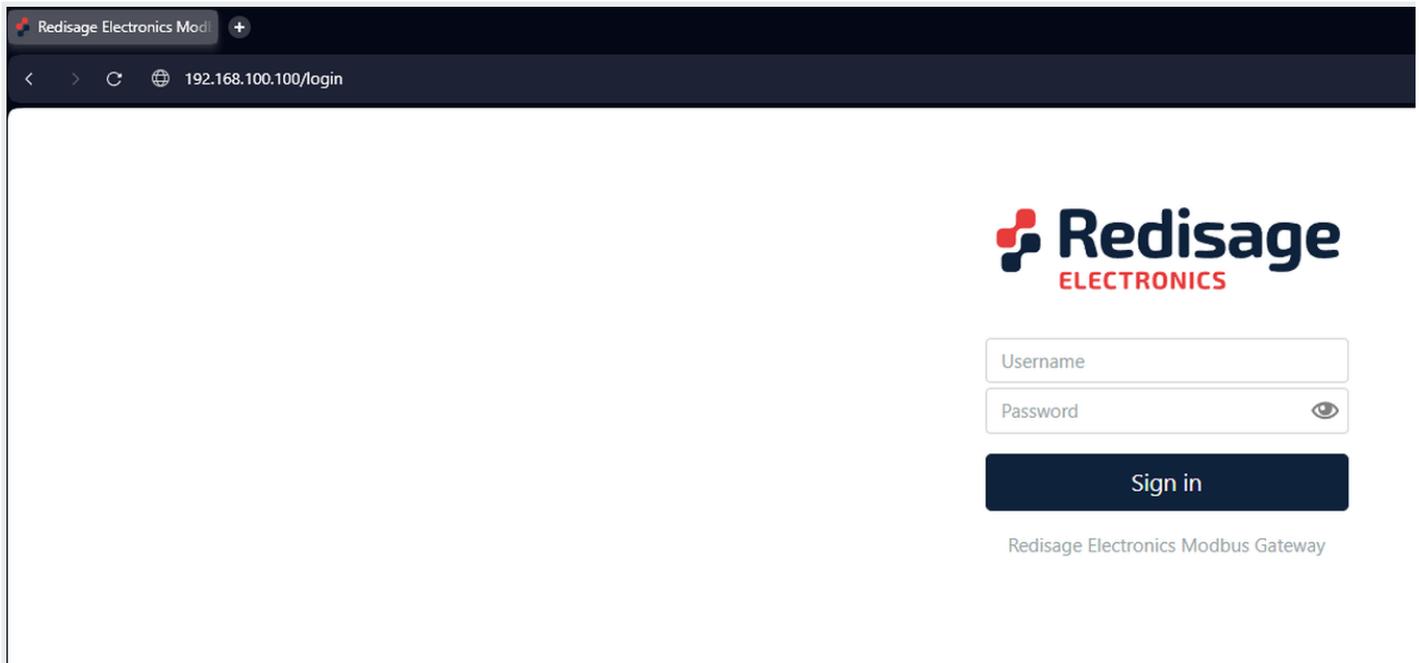
Configuration by the Web Page

Modbus Ethernet Gateways (G01 - G03 & G14 - G16)

This page presents capabilities of the Ethernet Converters configuration. First of all, make sure that converter is connected to power supply and to the LAN using a patch cord. If the device has no static IP set up, it will be necessary to obtain its IP address in the local network. User interface is mostly similar for all gateways but some subpages might be different for several models depending on amount of interfaces. In order to avoid issues, click on a “Help” button in the top right corner on every page.

Login

To access the web page open the browser, type device’s IP address of the converter (default is **192.168.100.100**). Then log in using user’s personal credentials. If it is a first configuration or the converter had a factory reset, use default login details (login: **admin**, password: **admin123**).



The configuration is available only if devices are connected to the same Local Area Network as the computer used for it.

Status page

After a successful login, there should be an insight to a list of available connections. If there is more than one connection, it is possible to sort them by ID, timestamp or status.

Gateway

Slave Id: ascending

Status:	Device:	Slave ID:	Address:	Timestamp:
Ok	Tx1-Rx1/A1-B1	1	192.168.100.165	N/A

Router

Slave Id: ascending

Status:	Device:	Slave ID:	Address:	Timestamp:
Ok	Tx1-Rx1/A1-B1	3	192.168.100.165:503	N/A

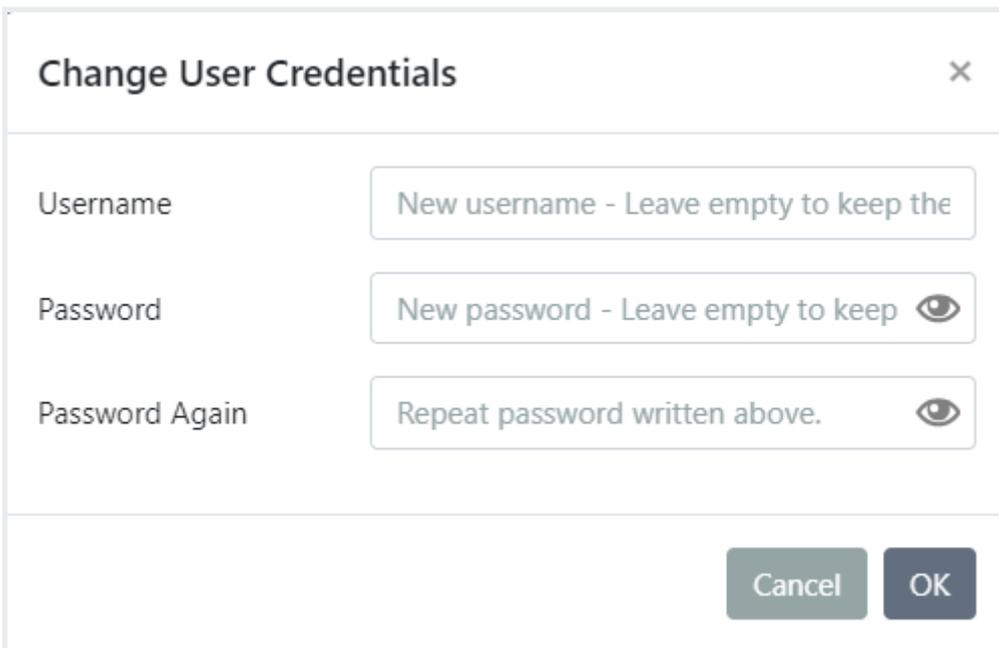
Clear All

Changing username or password

After clicking “Edit User” under the user icon, it is possible to change the username or the password.



Status:	Device:	Slave ID:	Address:	Timestamp:
Ok	Tx1-Rx1/A1-B1	1	192.168.100.165	N/A



If login details were forgotten, it would be necessary to do a factory reset via a USB/UART converter and a serial console.

Ports configuration

Configuration



Internal Modbus Address

Set 0 to not use internal resources.

Idle Time [s]

Ports Configuration

Port

Tx1-Rx1/A1-B1

Uart Mode

Uart Protocol

Gateway Slaves

Slaves Response Timeout [ms]

Baud Rate

Data Bits

Parity

Stop Bits

Termination

Port

Tx2-Rx2/A2-B2

Uart Mode

Uart Protocol

Gateway Slaves

Slaves Response Timeout [ms]

Baud Rate

Data Bits

Parity

Stop Bits

Termination

Routing Configuration

Routing Slaves

Slaves Response Timeout [ms]

IP/Hostname

TCP Port

Add

Save and Apply

Item		Description
Internal Modbus Address		Internal Modbus Address is qualified by the Gateway/Router as a request for internal resources. The Internal Modbus Address has a higher priority than the Gateway Slave Address.
Idle Time [s]		Determine a time thread waits for the TCP connection. If time expired, the connection and thread are closed. Used only in Gateway Mode.
UART Mode	Gateway	Define the port's role in the system. In the Gateway Mode the port is used to communicate with Modbus Slave.
	Router	Define the port's role in the system. In the Router Mode the port is used to communicate with Modbus Master. Note the Routing Configuration section below if the Router Mode is chosen.
	Disabled	Disable the port.
UART Protocol		Determine a protocol used for a communication.
Gateway Slaves		Addresses of Modbus Slave Devices connected to Gateway UART ports. Multiple addresses can be written in one field, e.g. 9;11;14-17;80. This field is available only in the Gateway Mode. Use * to select all not assigned addresses.
Slaves Response Timeout [ms]		Specify how long the device will wait for response from Modbus Slave.
Baud Rate		Determine the port's transmission speed over the data channel.
Data Bits		Determine the number of data bits in the port's message frame.
Parity		Enable/disable the parity check in the port's message frame.
Stop Bits		Determine the number of stop bits in the port's message frame.
Termination		Enable/disable termination on RS line.
Routing Slaves		Addresses of Modbus Slaves connected to Modbus Router. Multiple addresses can be written in one field, e.g. 9;11;14-17;80. Use * to select all not assigned addresses.

Item	Description
Slaves Response Timeout [ms]	Specify how long the device will wait for response from Modbus Slave.
IP/Hostname	Determine IP address or Hostname of Modbus Slave.
TCP Port	Determine TCP port of Modbus Slave.

Make sure to save all the changes with “Save and Apply” button located on the bottom of the page.

In the UDP mode, port number 15051 is reserved for UDP broadcast service.

Network settings

In this section, network settings can be changed according to target LAN parameters.

Network

Help

Hostname: modbus-router.local

Configuration Method: Static IP

The network configuration below is ignored if DHCP is chosen

IP Address: 192.168.100.100

Netmask: 255.255.255.0

Gateway: 192.168.100.1

DNS Address 1 (Primary): 192.168.100.1

DNS Address 2: 8.8.8.8

MAC Settings: Default MAC Address

MAC Address below is ignored if Default MAC Address is chosen.

MAC Address: b4:e6:2d:fb:ba:48

Services

HTTP port: 80

Telnet Port: 23

Modbus TCP listening port: 502

Save and Apply

Item	Description
Hostname	Label that is assigned to the device.
Configuration Method	Enable/disable the DHCP server. If the DHCP server is disabled, the IP address of the device has to be set manually.
IP Address	IP address of the device.
Netmask	Netmask associated with the IP address.
Gateway	Gateway address currently used by the device.
DNS Address	Domain Name System used by the device.
MAC Settings	Allow setting the default MAC address or typing it manually.
MAC Address	Allow changing the physical address of the device.

Item	Description
HTTP Port	Determine the port of the control panel.
Telnet Port	Allow connection with the device via Telnet.
Modbus TCP Listening Port	Used as an entry point for new Modbus TCP connections.

It is possible to obtain dynamic IP address. Just switch configuration method from static IP to DHCP (automatic). This process may cause some issues with identifying converters in LAN unless there is an access to the device which is responsible for allocating IP addresses.

Keep in mind that in case of changed IP address user needs to type new IP in the address bar and log in again.

Make sure to save all the changes with "Save and Apply" button located on the bottom of the page.

Device page

On the device page there are tools used to a firmware update, a factory reset and a device reboot. There are also some information about the device.

Item	Description
Firmware Update	Update firmware.
Factory Reset	Restore default ports settings and default network configuration.
Reboot	Reboot the device.

Item	Description
About	Basic information about the device.

Firmware update

The device firmware update must not be interrupted. Update the device only if experiencing issues, being instructed to do so by our support or requiring the latest features/bugfixes. Failure during the update may 'brick' the device and make it unusable.

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Firmware Update

WARNING: Device firmware upgrade must not be interrupted. Upgrade your device only if you experience issues, were instructed to do so by our support or require the latest features/bugfixes. Failure during the upgrade may 'brick' the device and make it unusable

Choose a file... Browse Update

Select the firmware upgrade package downloaded from our site. Installing unofficial firmware is not supported.

Use the **modbus-gateway-mcu-esp32.fir** file for a firmware update.

Factory reset

To restore default settings, press the red button. After that, user will be asked to type "RESET". Then it will take a few seconds to reload the web page and restart the device. After reset use default login details (login: **admin**, password: **admin123**; default IP: **192.168.100.100**).

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WARNING: This will restore all device settings to defaults. All clients will be disconnected.

Confirmation

Type RESET to confirm the factory reset. !

Reset

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