

# Network settings

All network settings are changeable via the website.

Amendments will become effective only after restart, so that it is possible to correct incorrect entries.

Some settings are available since Version 1.4 or 1.5. You should consider updating to the latest Release.

SYSTEM STATE

- COMMON
- USER
- GPIO
- SERIAL

Language: English

Firmware update:  Permitted  Deactivated

Save Reset

IP Allocation: DHCP -> Auto IP

IP Address: 192.168.0.10

Subnet mask: 255.255.255.0

Gateway: 192.168.0.1

Network name: ne2c3d9f.local

HTTP Port: 80

GPIO TCP Port: 65000  Active

Serial mode: Deactivated

Serial port: 64000

Changes take effect after restart!

Save Reset

## IP modes



IP mode determines how Netzer allocates its IP address, the subnetwork mask and the gateway.

## DHCP

In this mode, Netzer receives the IP address from a DHCP server. After restart, Netzer tries to contact the DHCP server via DHCP broadcast. If a DHCP server is available and prepared to provide an IP address, Netzer will receive its IP address in this way.

In this mode, Netzer remains without IP address until it has found a DHCP server.

### DHCP -> AutoIP (Default)

In this mode, Netzer receives the IP address from a DHCP server. After restart, Netzer tries to contact the DHCP server via DHCP broadcast. If a DHCP server is available and prepared to provide an IP address, Netzer will receive its IP address in this way.

Should Netzer fail to find a DHCP server after some attempts, it will automatically select an IP address from the AutoIP area (see mode [Auto IP](#))

### DHCP -> Manual IP

Analog to mode [DHCP -> AutoIP](#) Netzer tries to contact the DHCP server. Should the attempt fail, the IP data configured manually will be used (refer to mode [manual IP](#)).

## Auto IP

In this mode, Netzer selects an IP address from AutoIP area 169.254.1.0 - 169.254.254.255 directly upon restart. The subnetwork mask is 255.255.0.0, a gateway address is not provided. Selection and provision of the AutoIP address is done following the [Zeroconf](#) protocol. This guarantees that the IP address is well-defined in the network.

The starting AutoIP is chosen in format 169.254.X.Y. X is the 5th number and Y the 6th number of the MAC address. If for example Netzer has the MAC address *00-04-a3-2c-3d-9f* than the IP address

is 169.254.61.159.

In AutoIP mode, the IP address has a minor role. Accordingly, the IP address actually used is not very easy to determine (exception: [SPI Slave mode](#)). Instead, other mechanisms are used to access devices in such a network, e.g. via the [name of the device](#).

## Manual IP

In this mode, after restart Netzer uses the manual IP data previously configured.

IP Address:	<input type="text" value="192.168.0.10"/>
Subnet mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="192.168.0.1"/>

Prior to the IP address being used by Netzer it investigates whether the IP address is not already occupied in the network by another device. In this event, Netzer will enter the state “address conflict” which is indicated by the fast blinking of the connection LED at the network connector of Netzer.

This address conflict can be solved as follows

1. removing other device from the network or changing IP address or
2. resetting Netzer to factory settings [reset to factory settings at Netzer](#)

## Network name

This name is used to find Netzer in a so-called local network via the [Multicast DNS](#) protocol.

The network name may have up to eight characters. The name is required to be unambiguous in the network. In the event of a duplicate, the network service cannot be started and Netzer can only be contacted via the IP address. The name is only valid in the local domain, i.e. .local belongs to the name and must not be left out.

If [Bonjour](#)- or [Avahi-service](#) is installed on the server, the network name may be used for pinging and also browsing!

Moreover, there is the [Bonjour-Plugin](#) for InternetExplorer or [DNSSD](#) for Firefox or Chrome. Using this, Netzer can be traced in a Netzer and their websites can be accessed.

# HTTP Port

If required (for Firewall reasons or for port forwarding) the port of the Netzer web interface can be changed. The port is published by the name service in the network, so that calls via Bonjour plug-ins are correctly switched to the appropriate port. If calling up the website via the IP address, the port is required to be coded into the URL. An example for port 8080:

`http://ne123456.local:8080`

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