GNOME

GNOME232, GNOME485, GNOME422 and GNOME232 TTL

Ethernet Converters



Version 2.0

October 6, 2026

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1 Revision History

Version	Date	Description
2.0	6 October 2026	Complete documentation revision.

2 About the Device

GNOME converters provide bidirectional data conversion between a wired local area network (Ethernet) and RS232, RS485 or RS422 serial ports. They make it easy to connect serial devices to a computer network or extend a serial link over the internet, even to the other side of the world.

A **virtual serial port** is available for the converters. This software creates a new serial port in Windows and redirects it over the computer network to the serial port on a GNOME converter.

Ethernet ↔ RS232	Voltage levels RS232	Supply range	Port isolation RS232	Supply isolation
GNOME232	Standard	5 – 30 V DC	Yes	No
GNOME232 TTL	TTL 3.3 V	5 – 30 V DC	No	No
GNOME232 ISOL05	Standard	4.5 – 9 V DC	Yes	Yes
GNOME232 ISOL12	Standard	9 – 18 V DC	Yes	Yes
GNOME232 ISOL24	Standard	18 – 36 V DC	Yes	Yes
GNOME232 ISOL48	Standard	36 – 72 V DC	Yes	Yes

Table 2: Ethernet-to-RS232 converter variants: GNOME232

Ethernet ↔ RS485	Supply range	Port isolation RS485	Supply isolation
GNOME485	5 – 30 V DC	Yes	No
GNOME485 ISOL05	4.5 – 9 V DC	Yes	Yes
GNOME485 ISOL12	9 – 18 V DC	Yes	Yes
GNOME485 ISOL24	18 – 36 V DC	Yes	Yes
GNOME485 ISOL48	36 – 72 V DC	Yes	Yes

Table 3: Ethernet-to-RS485 converter variants: GNOME485

Ethernet ↔ RS422	Supply range	Port isolation RS422	Supply isolation
GNOME422	5 – 30 V DC	Yes	No
GNOME422 ISOL05	4.5 – 9 V DC	Yes	Yes
GNOME422 ISOL12	9 – 18 V DC	Yes	Yes
GNOME422 ISOL24	18 – 36 V DC	Yes	Yes
GNOME422 ISOL48	36 – 72 V DC	Yes	Yes

Table 4: Ethernet-to-RS422 converter variants: GNOME422

Port and supply isolation in the tables means galvanic isolation.

2.1 Features

- Converters from various serial interfaces to Ethernet (wired LAN)
- 100 Mbit Ethernet, RJ45 connector
- Small dimensions for easy integration into existing equipment
- Parameter configuration through a web interface[1]

[1] The web interface is part of Lantronix firmware. Panels and available settings may differ with the firmware version.

- LEDs indicate power, data transfer, network connection and activity
- Connectors:
  - RS232 on a standard D-SUB 9 connector, including ISOL variants
  - RS485 and RS422 on removable screw terminals, including ISOL variants
  - GNOME232 TTL on a 4-pin connector with a 2.54 mm pitch
  - Ethernet on RJ45
- Baud rates:
  - RS232: 300 Bd to 230.4 kBd
  - RS485 and RS422: 300 Bd to 921.6 kBd
- Communication signals:
  - RS232 on GNOME232: RxD, TxD, RTS, CTS, DTR, GND
  - RS232 on GNOME232 TTL: RxD, TxD
  - RS485: RxTx+, RxTx-
  - RS422: Rx+, Rx-, Tx+, Tx-
- Power supply: Various supply variants have overlapping ranges covering 5 to 72 V DC. The standard variants have a supply range of 5 to 30 V DC.
- Construction:
  - GNOME232 TTL: Circuit board for integration into equipment
  - Other variants: Metal enclosure suitable for wall mounting or a 35 mm DIN rail
- Protocols: TCP, UDP, Telnet, DHCP, Http
- Communication modes:
  - **TCP server + TCP client**:
    - In this combined mode, after power-up the device waits for serial-port data and is also ready to accept an Ethernet connection request.
    - If serial-port data arrives first, *TCP client* mode is activated (see below). If an Ethernet request arrives first, the module switches to *TCP server* mode (see below).
    - The module can remain in the activated mode, or disconnect after a specified idle interval and return to waiting for serial data or an Ethernet request.
  - **TCP server**
    - After power-up, the device listens on the selected port and waits for a TCP client connection.
    - Once a client connects, Ethernet data is sent to the serial port and vice versa. Serial data received while no client is connected is buffered and sent as soon as a TCP client connects.
    - If the client stops responding or terminates the connection incorrectly, the module disconnects after the configured interval.
  - **TCP client**
    - While idle, the device waits for serial-port data. When data arrives, it attempts to connect to the server at the specified IP address. If unsuccessful, the data is buffered. Once connected, the data is sent; transfer also works in the opposite direction.
  - **UDP**

– Ethernet data is received on the specified port. Serial data is sent to the configured IP address. UDP does not check the response from the other end. Delivery confirmation and protection against data loss must be handled by the application layer.

2.2 Applications

- Connecting devices with serial interfaces to Ethernet
- Communicating with remote devices over the internet
- Adding network connectivity to older equipment

2.3 Basic Network Information

GNOME must have a subnet mask, a gateway IP address and a unique IP address appropriate for the network to which it is connected. The factory subnet mask is 255.255.255.0[2] and the factory IP address is 192.168.1.254.

- Default IP address: **192.168.1.254**
- Default gateway IP address: **0.0.0.0**
- Default subnet mask: **255.255.255.0**
- The MAC address is a unique address printed on the label on the side of the device. It consists of six hexadecimal octets separated by hyphens, in the format 00-20-4A-xx-xx-xx.

2.4 Network Security

The device is intended exclusively for operation on a trusted local area network (LAN) behind a network router or firewall. It is not intended for direct connection to the public internet or direct access from external networks, for example through a public IP address or port forwarding.

The device does not provide protection suitable for operation on public networks. Use a VPN or a comparable secure mechanism for remote access. An example connection is shown under Connection through a Router.

[2] This subnet mask is also known as a class C mask.

3 Connections

3.1 GNOME232, GNOME232 ISOL

The **RS232 serial port** uses a standard D-SUB 9 M (Canon 9) connector. The pin assignment is standard; individual **signals** are described in the technical parameters in Fig. 31. GNOME232 with a D-SUB 9 F connector is also available to order.



Fig. 1: RS232 serial port, D-SUB 9 M connector



Fig. 2: Ethernet (RJ45) and power (barrel connector) connections

Connect the **Ethernet** interface to a switch using a standard straight-through cable with an RJ45 connector.

Connect the **power supply** (5 – 30 V DC; for ISOL variants, according to the ordered version) to the 3.8 × 1.3 mm barrel connector, with positive polarity at the centre.

3.2 GNOME485

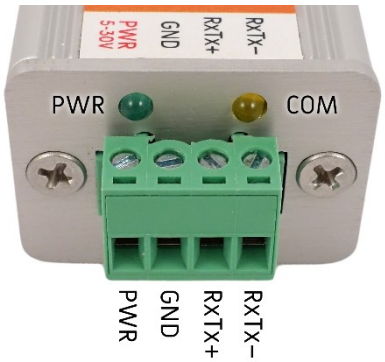


Fig. 3: GNOME485 power and RS485 connector

Connect the **Ethernet** interface to a switch using a standard straight-through cable with an RJ45 connector.

A removable terminal block is provided for the **power supply** (5 – 30 V DC) and the RS485 communication line (RxTx+; RxTx-)[3], see Fig. 3.

[3] RxTx+ and RxTx- are also commonly referred to as A and B.

Bias and Termination Resistors

Jumpers inside GNOME485 allow 680 Ω bias resistors (BIAS) and a 120 Ω termination resistor (IMP) to be connected to the RS485 line. These jumpers are open at the factory.

Internal 22 kΩ bias resistors are permanently connected.



Fig. 4: BIAS and IMP jumpers inside the device

Close the **IMP** jumper if the RS485 communication line is in an electrically noisy environment, for example where it runs alongside power cables. A maximum of two modules on a line may have termination enabled, one at each end. In most cases the jumper is not required.

Close the **BIAS** jumpers on one device on the line to connect the bias resistors.

3.3 GNOME485 ISOL

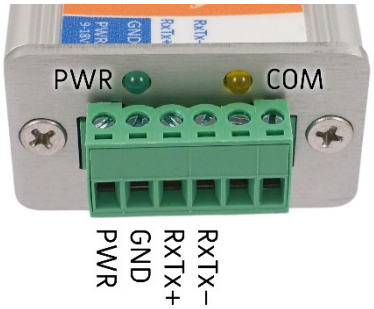


Fig. 5: GNOME485 ISOL power and RS485 connector

Connect the **Ethernet** interface to a switch using a standard straight-through cable with an RJ45 connector.

A removable terminal block is provided for the **power supply** (range according to the ordered variant) and the RS485 communication line (RxTx+; RxTx-), see Fig. 5.

Bias and Termination Resistors

The converter contains only fixed 22 kΩ bias resistors. The full bias and termination resistors must be connected externally to the converter terminals as shown in Fig. 6.

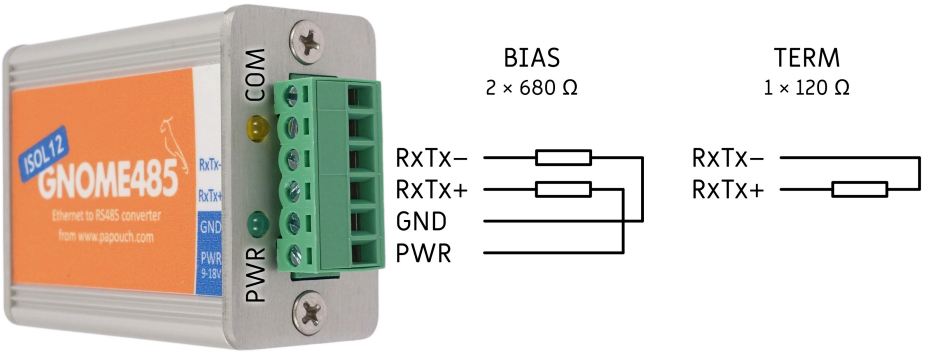


Fig. 6: External resistors on GNOME485 ISOL: BIAS – line biasing; TERM – line termination.

3.4 GNOME422, GNOME 422 ISOL

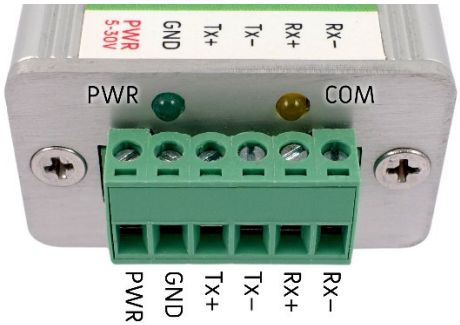


Fig. 7: GNOME422 power and RS422 connectors

Connect the **Ethernet** interface to a switch using a standard straight-through cable with an RJ45 connector.

A removable terminal block is provided for the **power supply** (5 – 30 V DC; for ISOL variants, according to the ordered version) and the **RS422** communication line (Tx+; Tx-, Rx+; Rx-).

Bias and Termination Resistors

The converter contains only fixed 22 kΩ bias resistors. The full bias and termination resistors must be connected externally to the converter terminals as shown in Fig. 8.

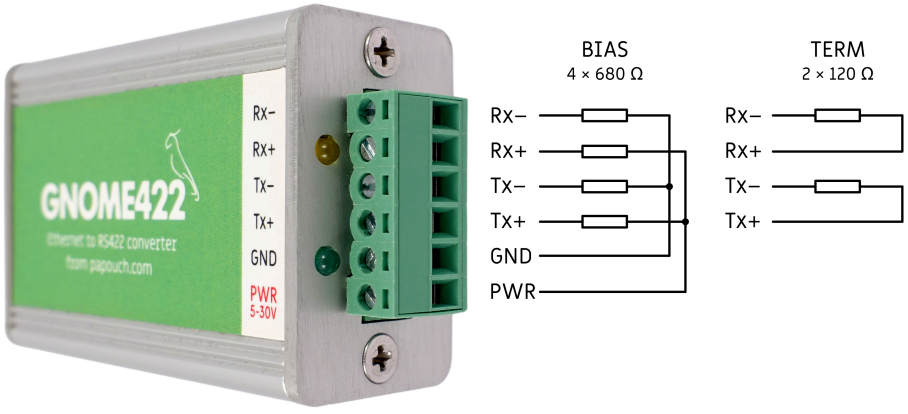


Fig. 8: Connecting external resistors: BIAS – line biasing; TERM – line termination.

3.5 GNOME232 TTL



Fig. 9: RS232 connector with TTL levels

Connect the **Ethernet** interface to a switch using a standard straight-through cable with an RJ45 connector.

Connect the DC **power supply** (5 – 30 V DC) to the + and – pins on the connector shared with the serial interface.

The power supply and serial interface share a 4-pin connector with a 2.54 mm pitch.

Connect **RS232** with 3.3 V TTL levels to pins T (TxD) and R (RxD) on the connector shared with the power supply.

3.6 Connections – Related Products

The following accessories are also available for the converters:

- 12 V switched-mode power supply (plug-in adaptor).
- 12 V power supply for a DIN rail.
- UTP cable for Ethernet connection.
- *For GNOME232:* A 2 m cable with a 3.8 × 1.3 mm barrel connector. The other end has free wires for connection to a power supply.

4 Indicators

- The **green** LED (PWR) lights when power is connected.
- The **yellow** LED (DCD or COM) lights while a TCP connection is open on the data port.
- The **left** LED in the Ethernet connector (Link):
  - Off: not connected
  - Yellow: 10 Mbps
  - Green: 100 Mbps
- The **right** LED in the Ethernet connector:
  - Off: no communication
  - Yellow: half-duplex communication (Half-Duplex)
  - Green: full-duplex communication (Full-Duplex)

5 Easy GNOME Setup

This chapter gives configuration examples for typical applications. The examples assume the converter is at its default settings.

5.1 Ethernet-to-Serial Converter (Basic Setup)



Fig. 10: Typical GNOME Ethernet-to-serial connection

1) Connect the converter to your network and ask your network administrator for suitable network parameters to assign to it.
2) Run Papouch Device Finder, select the network interface connected to the same LAN and click **Refresh**. Identify GNOME by the MAC address on its label. Select **Set IP Address...** in the device menu and enter the network parameters assigned by your administrator.
3) After changing the address, open the web interface at the new IP address and configure the serial interface for the connected equipment. Changing the IP address in Device Finder does not configure the serial parameters. GNOME's default serial settings are 9600 Bd, 8 data bits, no parity, 1 stop bit and no flow control.[4]

5.2 Extending a Serial Link over Ethernet

The diagram shows a typical configuration of two converters extending a serial link over Ethernet.

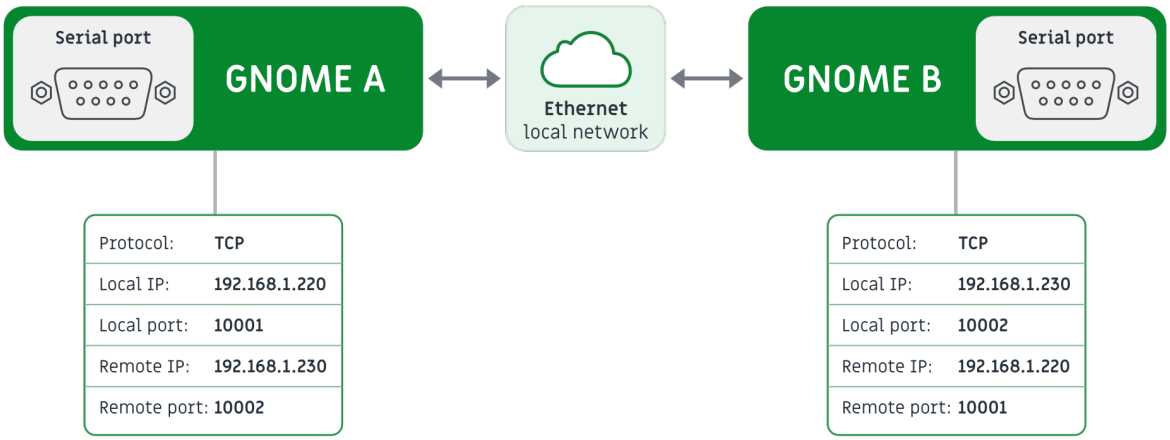


Fig. 11: Serial-link extension over Ethernet

5.3 Virtual Serial Port

The virtual serial port is Lantronix software that creates an additional COM port in Windows and redirects it over the computer network to the serial port on a GNOME converter. Your existing application can communicate with the original hardware over Ethernet without modification.

[4] Default converter RS232 (or RS4xx) settings are: baud rate 9600 Bd, 8 data bits, no parity and 1 stop bit.

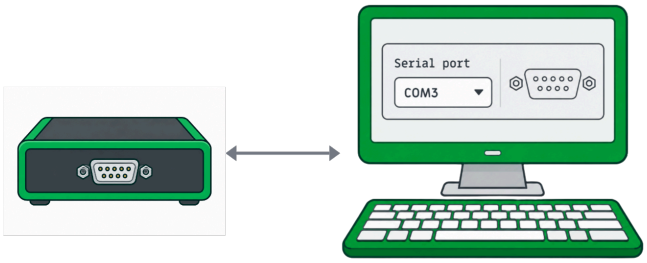


Fig. 12: Before: Direct connection of the device to the PC serial port

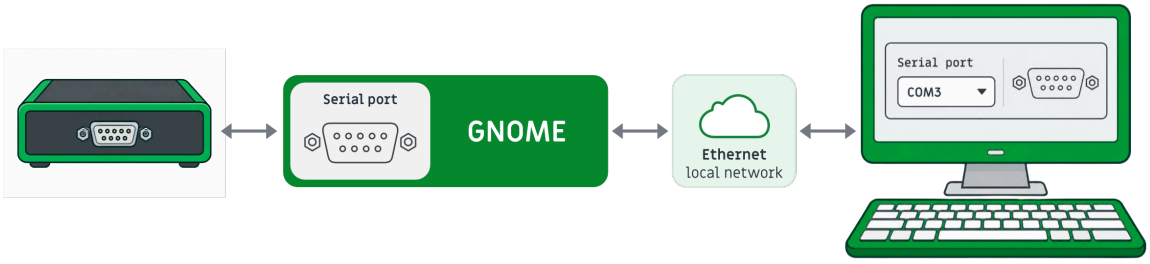


Fig. 13: Now: Connection through a virtual serial port. No changes are required to either the original device or the original application on the PC.

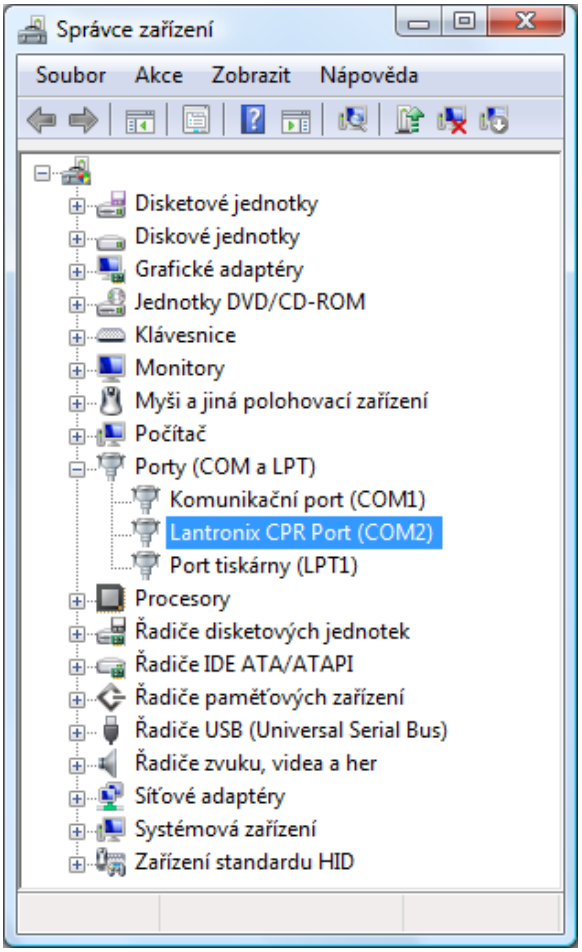


Fig. 14: Windows Device Manager with a virtual serial port (Czech Windows interface)

The virtual serial port software is available from papouch.com/virtualni-seriovy-port-p4026.

The virtual serial port window is shown in Fig. 15. The left-hand pane lists the COM ports currently available in the system. The right-hand pane shows the selected port's configuration (Settings tab) or tests (Com n Tests tab). The bottom pane lists local Ethernet devices using Lantronix Ethernet chips and modules. Click the magnifying-glass icon in the top toolbar to refresh this list.

To create a new system serial port redirected to the serial interface on GNOME:

1) Click the connector-and-cable icon in the top toolbar.
2) In the dialogue that opens, select the number for the new COM port.
3) The port appears in the list on the left. Its parameters are shown on the right.
4) In the lower part of the settings window, enter the converter's IP address and data-port number. Adjust any other parameters as required.[5]
5) Once all parameters are set, click the floppy-disk icon in the top toolbar.
6) You can now test the connection on the Com n Tests tab.
7) The virtual COM port is ready for use. Select the COM-port number specified above in your application. Data on this new serial port will pass over Ethernet through GNOME.

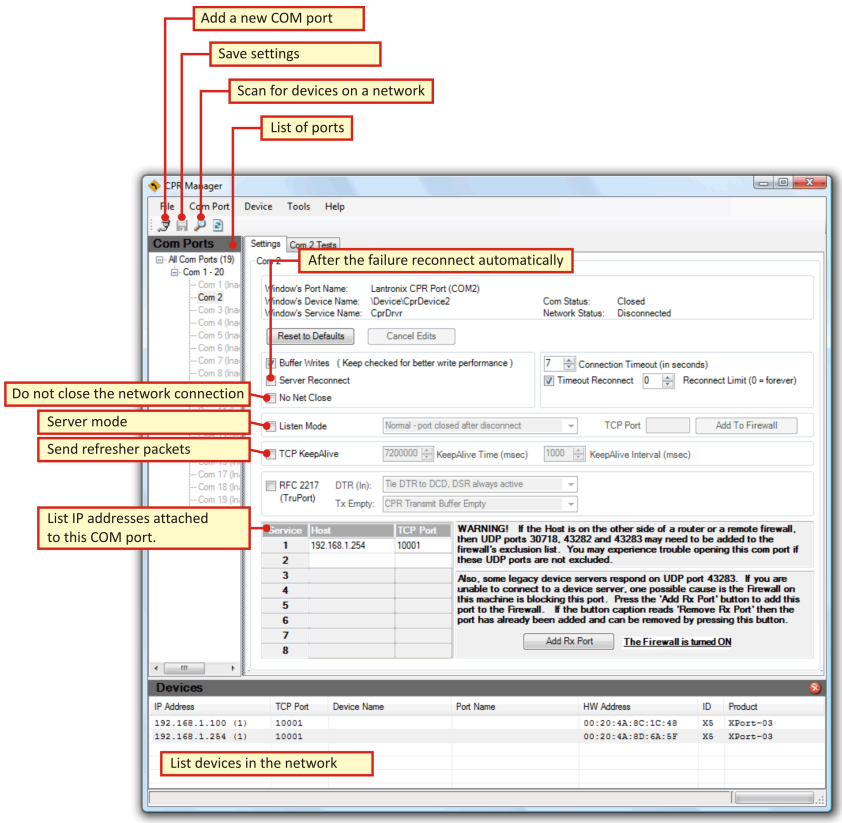


Fig. 15: Virtual serial port main window

[5] Multiple IP addresses can be specified for one COM port. When the port opens, connections to the individual IP addresses and ports are attempted. If the first attempt fails, the remaining addresses are tried in sequence until a connection succeeds.

5.4 Connection through a Router

Follow the guidance under Network Security. For remote access, use a VPN between the computer and the local network router. Once the VPN is established, communicate with GNOME at its private IP address and data port. Do not forward GNOME configuration or data ports directly to the public internet.

The following diagrams show TCP and UDP communication through a VPN. Port 10001 is the default data port; use the actual configured port in your network. UDP remains unacknowledged, and the application must handle any losses.

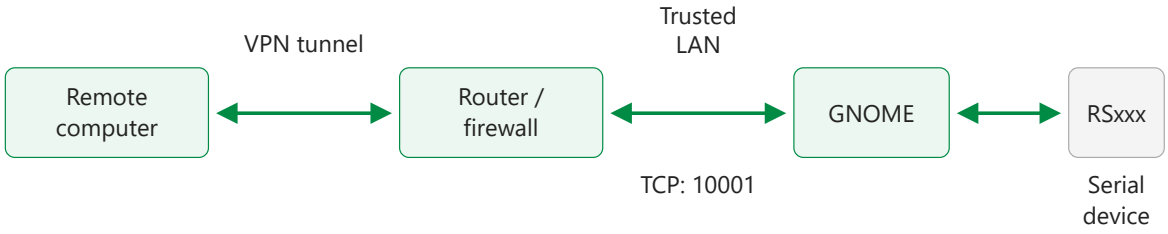


Fig. 16: TCP access to GNOME through a VPN

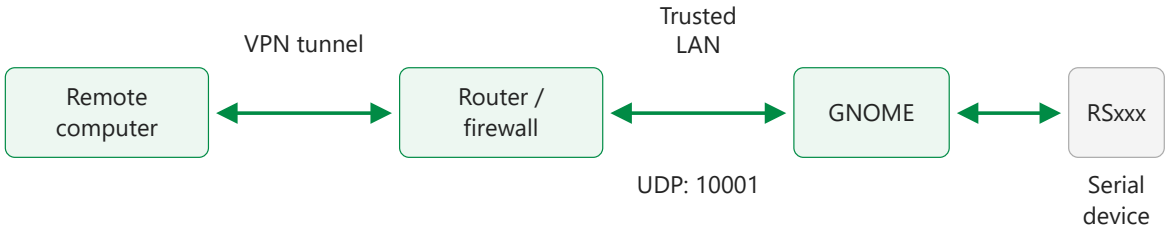


Fig. 17: UDP access to GNOME through a VPN

6 Configuration Methods

1) Papouch Device Finder (device discovery and basic network configuration)
2) Web browser (over Ethernet)
3) Telnet protocol (over Ethernet)
4) Terminal program (over the serial interface)

7 Papouch Device Finder

Papouch Device Finder discovers Papouch and Lantronix devices on the local network and configures their basic network parameters. The Windows 10 and 11 application has an English interface.

1) Connect GNOME to the same LAN as the computer and switch it on. Select the appropriate network interface in the program.
2) Click **Refresh** to update the device list. Identify GNOME by the MAC address on its label.
3) Right-click the device and select **Set IP Address...**. Set the IP address, subnet mask and gateway for your network.
4) After changing the address, refresh the list again. Select **Open Web** to open the converter configuration.

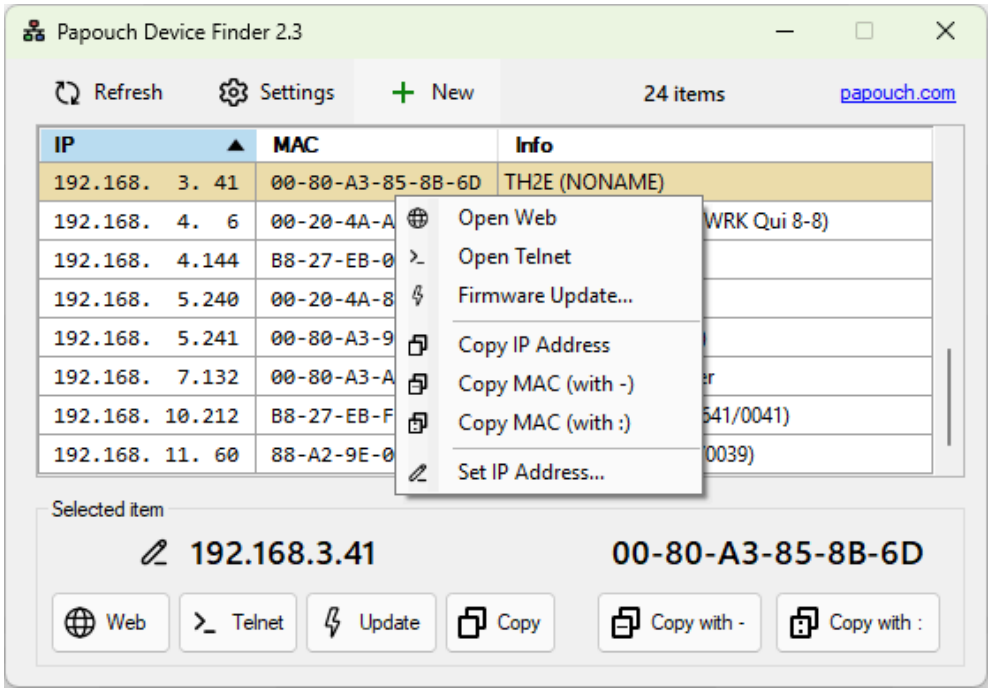


Fig. 18: Papouch Device Finder – example device menu

The illustration shows the program menu for another Papouch.com device. Configure GNOME serial parameters through the web interface, Telnet or the serial interface; they are not part of the IP-address change in Device Finder.

8 Configuration Using a Web Browser

1) Open a web browser and enter http://[module IP address] in the address bar. The factory IP address is 192.168.1.254.
2) The browser prompts for a connection password. No password is set in the default configuration: leave both username and password empty and confirm the dialogue.
3) The module's internal web interface opens (Fig. 19).

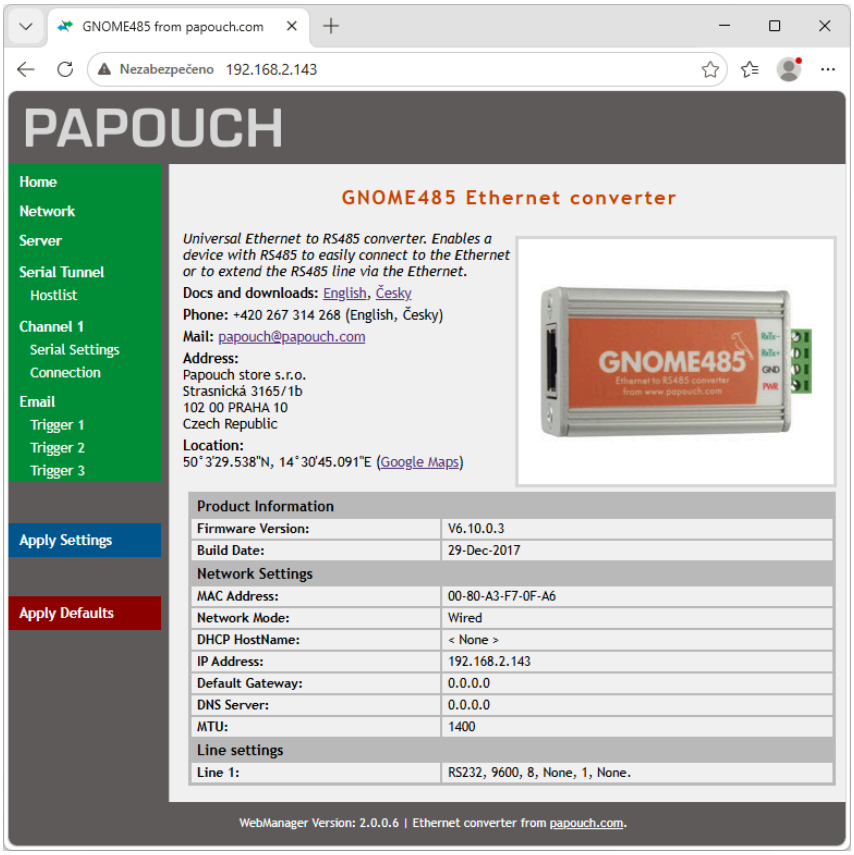


Fig. 19: Home page of the web interface (GNOME485)

8.1 Home

The converter home page is shown in Fig. 19.

8.2 Network

This menu section contains basic network settings such as the IP address, subnet mask and Ethernet speed.

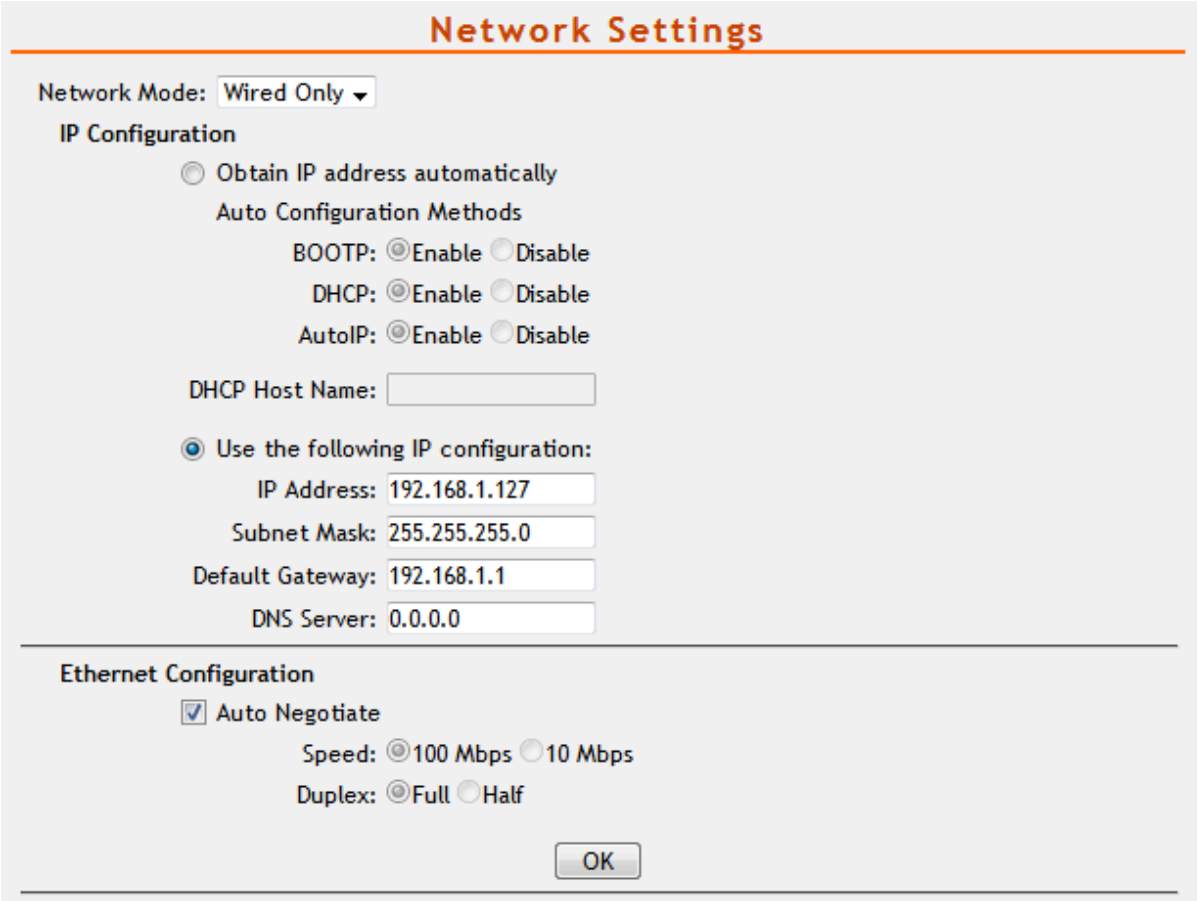


Fig. 20: Network Settings

IP Configuration

The converter IP address can be assigned automatically (Obtain IP address automatically) or manually (Use the following IP configuration).

After changing the IP configuration, reconnect to the converter at its new address.

Automatic IP assignment can use DHCP, AutoIP or BOOTP.

The following settings apply to manual IP assignment:

IP Address

Sets the GNOME module IP address, which uniquely identifies it on the connected network.

Subnet Mask

Sets the subnet mask defining the IP-address range within the network segment containing GNOME.[6]

Default Gateway

The gateway IP address identifies the computer or router providing GNOME with access to other networks, including the internet.

Ethernet Configuration

Sets the Ethernet speed and communication mode. By default, speed and mode are detected automatically with Auto Negotiate selected.

[6] Letter notation is also used for subnet masks: A means 255.0.0.0; B means 255.255.0.0; C means 255.255.255.0.

Manual configuration allows a fixed speed (10 or 100 Mbps) and communication mode (Full duplex or Half duplex).

8.3 Server

Configures advanced functions of the converter's server section.

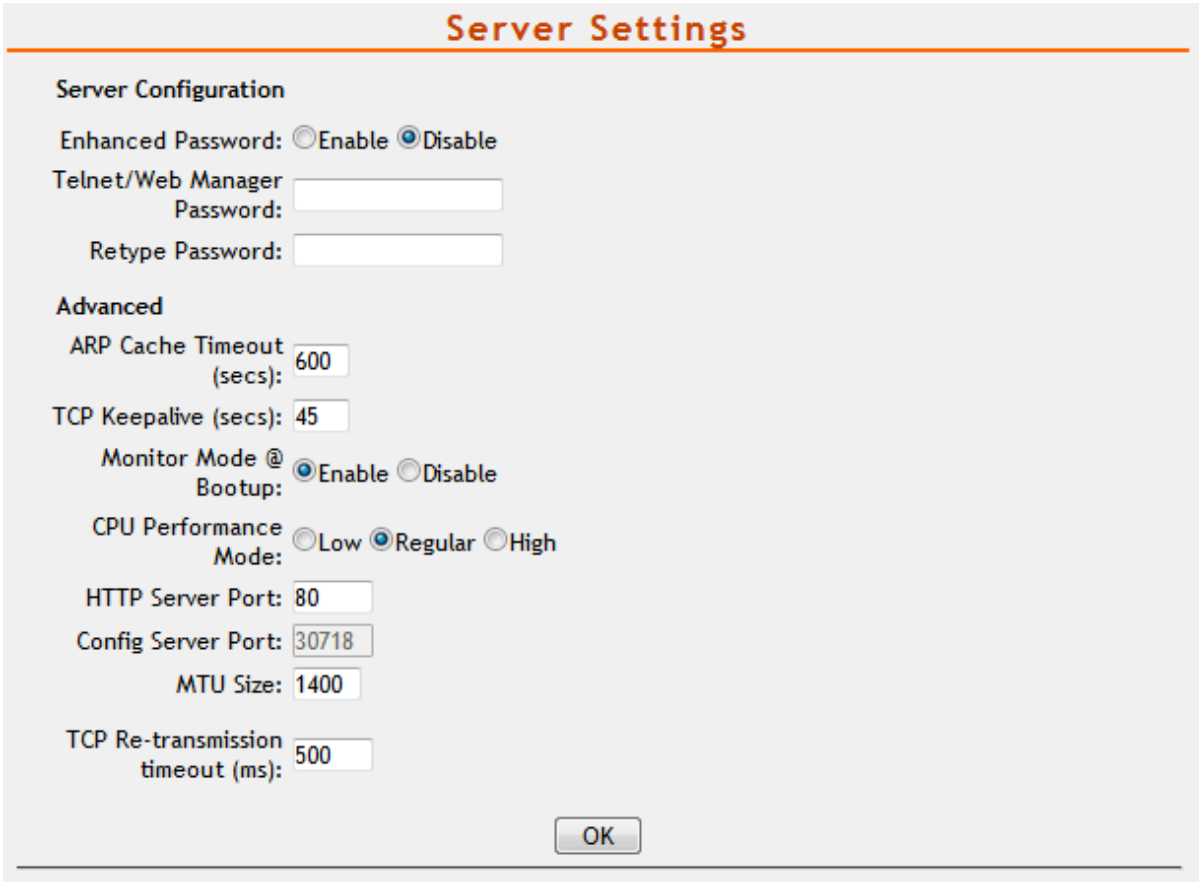


Fig. 21: Server Settings

Server Configuration

Telnet/Web Manager Password

Password for Telnet and web-interface access. With **Enhanced Password** disabled, the maximum length is 4 characters; when enabled, it is 16 characters.

New password: Enter the new password in Telnet/Web Manager Password and repeat it in Retype Password.

Remove password: Clear Telnet/Web Manager Password and Retype Password.

To remove a forgotten password, follow Removing the Telnet or Web Password.

Advanced

These settings are for experienced users only! Incorrect changes may destabilise the converter's network communication or prevent access to its internal web pages.

ARP Cache Timeout (secs): ARP cache lifetime, range 1–600 s, default 600 s.

TCP Keepalive (secs): TCP keepalive interval, range 0–65 s, default 45 s. A value of 0 disables this function.

CPU Performance Mode

Regular: Serial baud rates up to 230.4 kBd can be selected.

High: Allows baud rates up to 921.6 kBd.

HTTP Server Port

Port number on which the converter web pages are available. The standard port is 80.

This setting is useful if a router or firewall blocks port 80. Set another port that is not blocked. The web interface is then available at *http://[ip_address]:[web_port]/*.

8.4 Hostlist

This section configures up to 12 remote servers to which the converter will connect in client mode if the server specified in Connection/Remote Host and Connection/Remote port is unavailable.

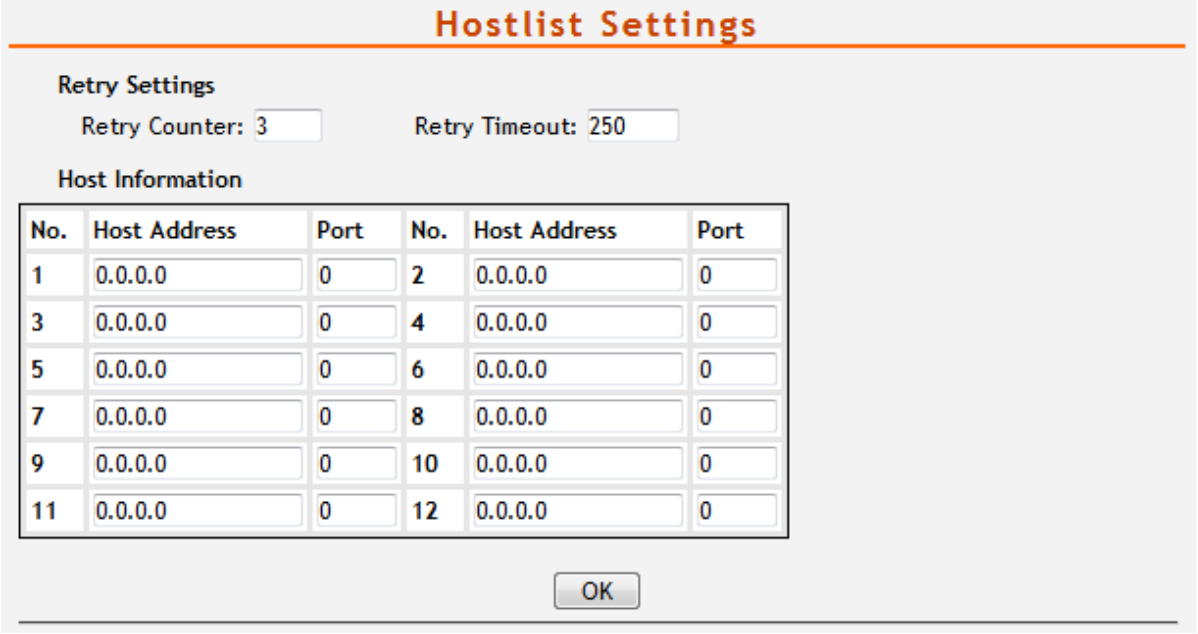


Fig. 22: Hostlist Settings

An IP address and port can be defined for each remote server.

The converter tries the IP addresses in sequence. Retry Counter defines the number of attempts per address, and Retry Timeout defines the response wait time in milliseconds.

8.5 Serial Settings

Configures serial-interface, packetisation and buffer parameters. Some settings apply only to converters with particular serial interfaces.

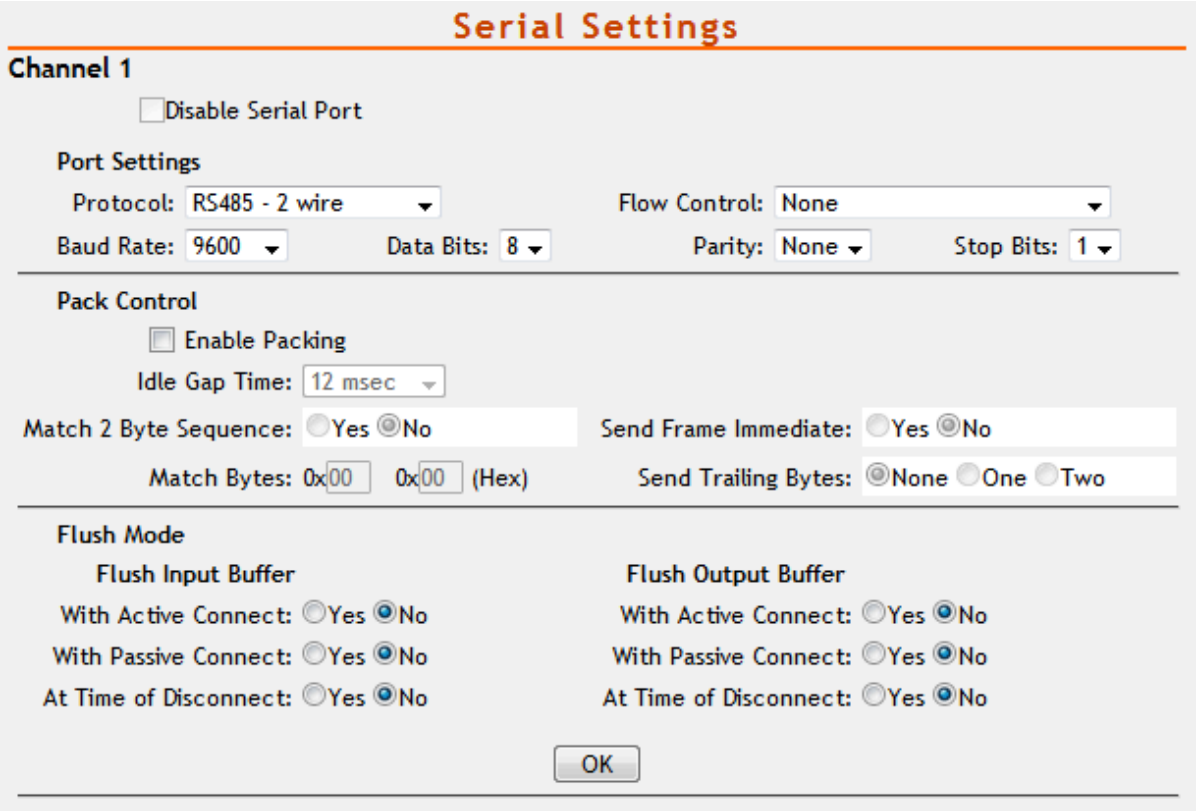


Fig. 23: Serial Settings

Port Settings

Configures the serial baud rate, character size, parity, stop bits and flow control.

Line type

Select the interface type appropriate for the converter: RS485 for GNOME485, RS422 for GNOME422, and RS232 for GNOME232 and GNOME232 TTL.

Flow Control

Sets the flow-control mode. Options are None, Xon/Xoff, Xon/Xoff pass chars to host and CTS/RTS. Hardware flow control is available only on GNOME232. GNOME232 TTL has only TxD and RxD signals and does not support hardware flow control.

Default: None

Line speed

Sets the serial baud rate in baud.

Options are 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400, 460800 and 921600. Regular mode allows rates up to 230400 Bd; 460800 and 921600 Bd require High mode. Select the mode under **Server** → **Advanced** → CPU Performance Mode.

Default: 9600

Character size

Sets the character size (number of data bits). Options are 7 and 8 bits.

Default: 8

Parity

Selects parity: None, Even or Odd.

Default: None

Stop Bit

Sets the number of stop bits. Options are 1 and 2.

Default: 1

Pack Settings

Select Enable Packing to control how serial data is assembled into Ethernet packets.

Idle Time

Defines the idle interval after which received serial data is assembled into a packet and sent over Ethernet. No RSxxx data may arrive during this interval. Options are 12 ms, 52 ms, 250 ms and 5 s.

Default: 12 ms

Match 2 Byte Sequence

Match 2 Byte Sequence specifies whether the two **Match Bytes** values are recognised as a single two-byte sequence. When disabled, each character is evaluated independently. Enter Match Bytes values in hexadecimal.

Send Frame Immediate sends the data immediately when the sending condition is recognised. When disabled, characters already waiting in the serial buffer may also be included in the transmitted data.

Send Trailing Bytes specifies how many characters following the terminator character or sequence are added to the packet: **None**, **One** or **Two**. This is a separate setting, for example to include a checksum; it is not the number of characters in the terminating sequence.

Flush Mode

These options control buffer operation. Input Buffer stores data from the serial interface to Ethernet. Output Buffer stores data from Ethernet to the serial interface.

Active Connection: the converter initiates an Ethernet connection.

Passive Connection: the converter accepts an Ethernet connection request.

With Active Connect

Enable: The buffer is cleared once the converter establishes an Ethernet connection.

Default: Disable

With Passive Connect

Enable: The buffer is cleared after accepting a connection initiated from Ethernet.

Default: Disable

At Time of Disconnect

Enable: The buffer is cleared when the connection is interrupted.

Default: Disable

8.6 Connection – TCP

Selecting TCP in Connection Settings makes the following settings available:

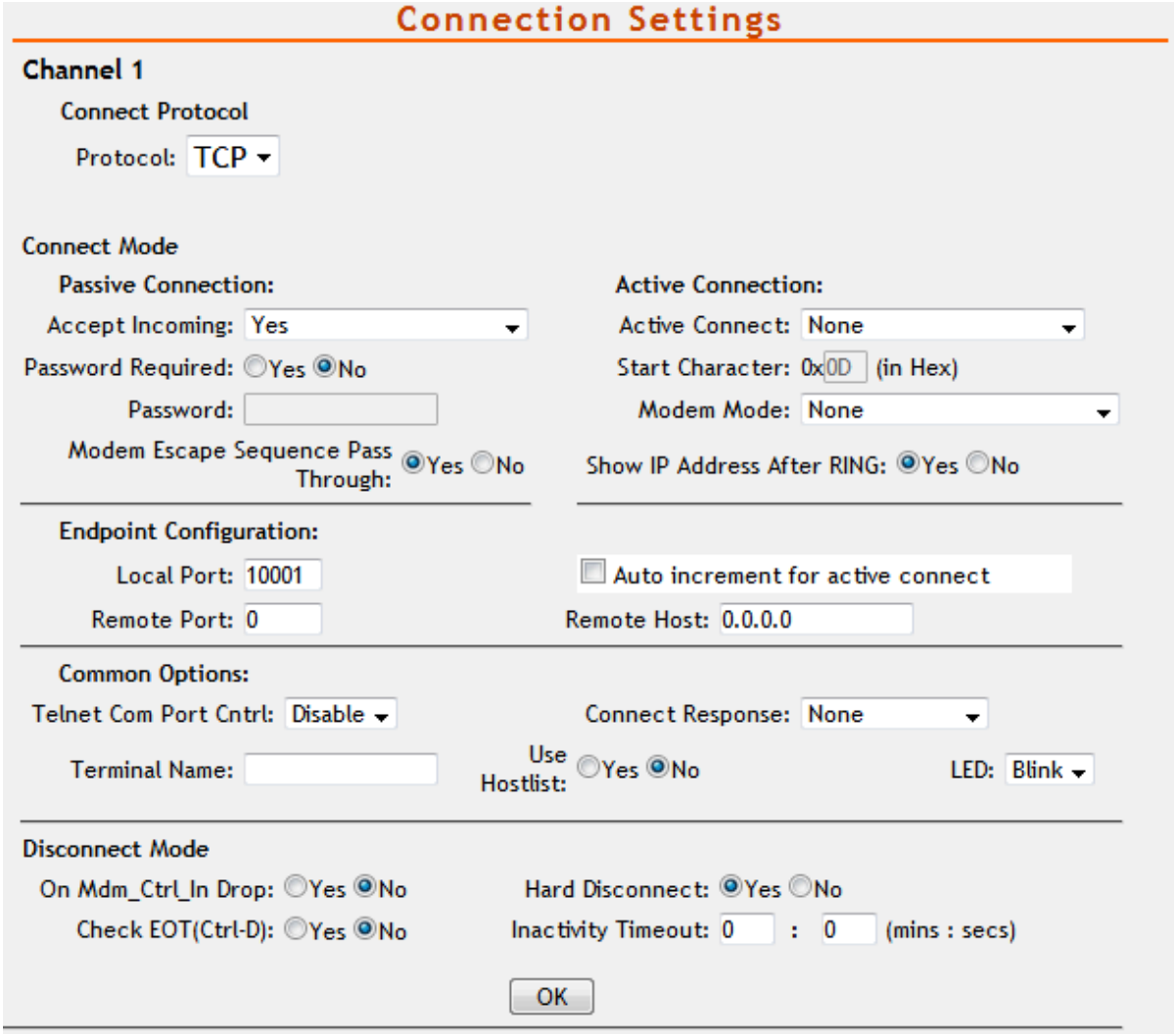


Fig. 24: Connection Settings – TCP

Connect Mode

Passive Connection – Server Mode

Activates server mode: the converter passively waits for an Ethernet connection. A password can be required by selecting Password Required : Yes. Enter the required password in Password.

Active Connection – Client Mode

Activates client mode: the converter actively connects to the remote server specified under Endpoint Configuration below.

None: Client mode is inactive.

With Any Character: Connect when any character arrives on the serial interface.

With Active Mdm Ctrl In: Connect in modem mode.[7]

[7] On GNOME422, this option can only be used if a remote modem is connected to the RS422 interface through an RS422/RS232 converter.

With Start Character: Connect when a specific character arrives on the serial interface. Specify it in Start Character.

Manual Connection: Attempt to connect to the remote IP address when a serial command arrives in the format C[IP address]/[port].

Example serial command connecting to IP address 192.168.1.105 on port 4567: C192.168.1.105/4567

If the subnet mask leaves only 8 host bits (a class C mask, 255.255.255.0), the abbreviated command C105/4567 is sufficient to connect to the address above.

Autostart: Immediately after power-up, attempt to connect to the remote IP address specified under Endpoint Configuration below.

Endpoint Configuration

Specifies the remote server to which GNOME connects. Remote Host contains the IP address and Remote port the remote port number.

Local Port specifies the converter port from which the connection is established.

Disconnect Mode

Inactivity Timeout

If enabled, an established Ethernet connection is terminated after the configured period without communication in either direction. Enter the interval as mm:ss (minutes:seconds).

8.7 Connection – UDP

Selecting UDP in Connection Settings makes the following settings available:

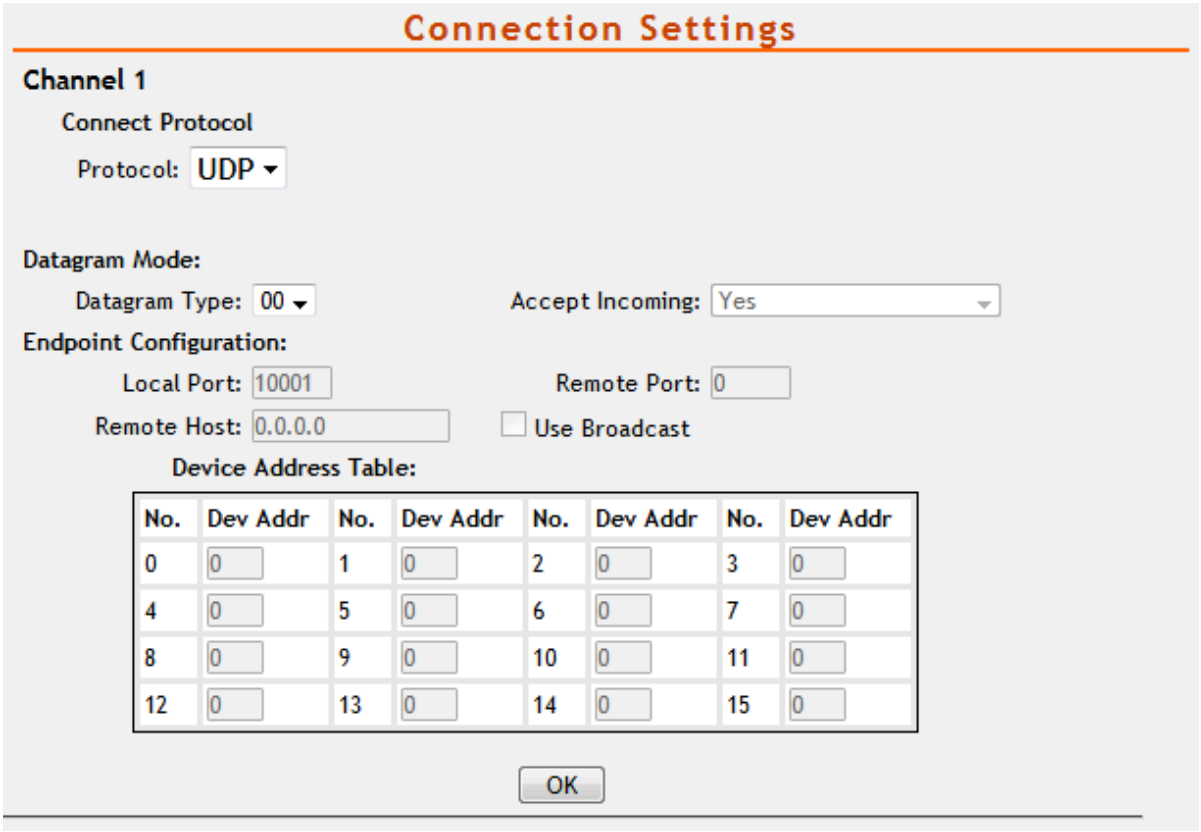


Fig. 25: Connection Settings – UDP

Select 01 for Datagram Type.

Endpoint Configuration

Specifies the remote server to which GNOME connects. Remote Host contains the IP address and Remote port the remote port number.

Local Port specifies the converter port from which the connection is established.

Accept Incoming

Configures how the module handles an incoming connection request.

Yes: Always accept the connection request.

No: Never accept the connection request.

Accept Incoming/DTR: This option is not supported.

8.8 E–mail

Configures e-mail sending. E-mails are sent in response to events configured as Trigger 1 to 3 in the main menu.

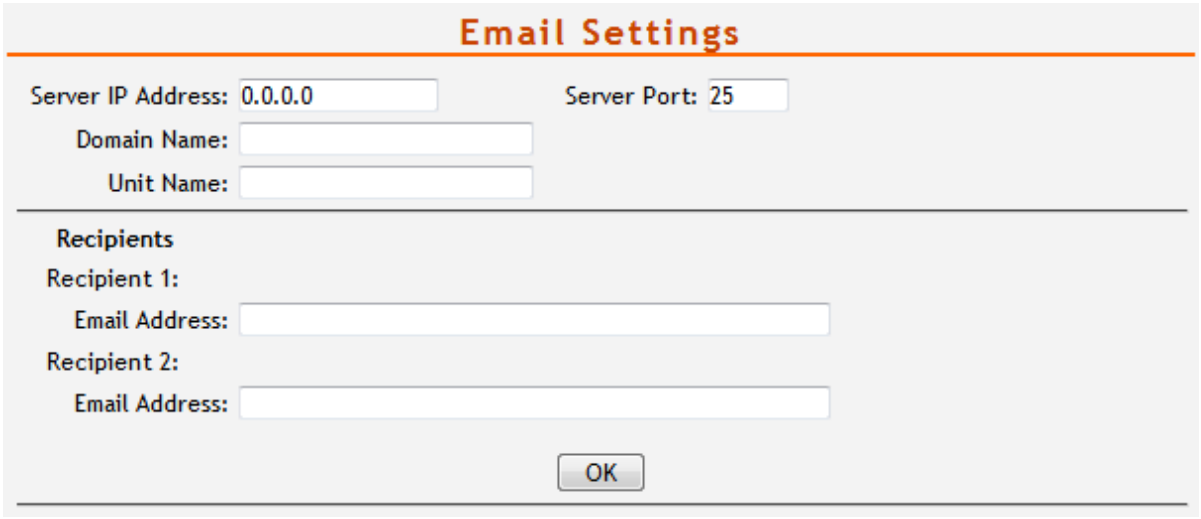


Fig. 26: Email Settings

Set the SMTP server IP address in Server IP Address and its port in Server Port.[8] Enter the server name in Domain name and the converter name in Unit Name.

One or two recipient e-mail addresses can be entered in Recipient 1 and Recipient 2.

8.9 Trigger

Trigger 1 to Trigger 3 configure up to three events that send an e-mail to the addresses specified in the preceding E-mail section.

[8] The server must not require authentication when sending a message.

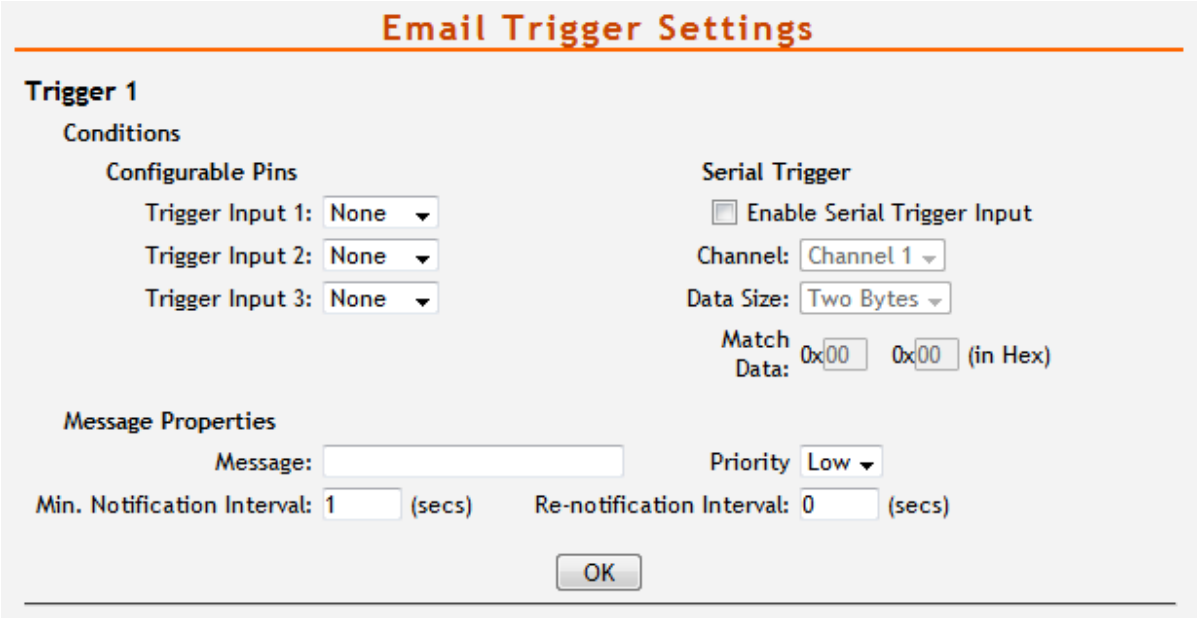


Fig. 27: Email Trigger Settings

One or two bytes received on the serial interface can trigger an e-mail. Enter the message to send in **Message**.

Select **Enable Serial Trigger Input** to activate the trigger. Select whether to expect **One Byte** or **Two Bytes**, and enter their hexadecimal codes in **Match Data**.

Min. Notification Interval is the minimum interval between two e-mails. Messages are therefore not sent more frequently than this interval.

Re-notification Interval does not apply to GNOME.

8.10 Apply Settings

Saves all changes to the converter. If any setting was changed, the converter restarts. Reconnect using the new parameters, for example a changed IP address or port.

8.11 Apply Factory Defaults

Restores the converter's default settings.

9 Configuration Using Telnet or the Serial Interface

9.1 Connection

Telnet: Known IP Address

The factory IP address is **192.168.1.254**.

1) Open the Windows command prompt and run `telnet`.[9]
2) Connect to the converter's configuration port:

```
open [IP_address] 9999
```

3) The converter displays introductory information. The following output is an example:

```
MAC address 00204A9AE5E2
Software version V6.1.0.2 (060217) XPTEXE
Press Enter for Setup Mode
```

Press Enter within **3 seconds**, otherwise configuration closes.

4) The converter displays its settings and the Change setup menu. The parameter groups are described under Main Menu.

Telnet: Unknown IP Address

The converter can also be restored to factory defaults with IP address 192.168.1.254; this also overwrites the other parameters.

1) Open the Windows command prompt.
2) If an ARP-table entry already exists for the new IP address, remove it. Then create an entry assigning the converter MAC address to the new IP address:

```
arp -d [new_ip_address]
arp -s [new_ip_address] [converter_MAC_address]

# Example:
arp -s 192.168.1.254 00-20-4a-80-65-6e
```

3) Run `telnet`[9] and attempt to connect to port 1:

```
open [new_ip_address] 1
```

4) The connection fails. This attempt is nevertheless required to assign the converter IP address temporarily.
5) Connect to the configuration port:

```
open [new_ip_address] 9999
```

[9] The Telnet client is not enabled by default in Windows 10 and 11. To enable it:

Type Windows features into the search box and select *Turn Windows features on or off*.

In the *Windows Features* window, select *Telnet Client* and click *OK*.

6) When `Press Enter for Setup Mode` appears, press Enter within **3 seconds**. The introductory output and subsequent procedure are the same as under Known IP Address.

7) Set the required IP address and other network parameters in **Server** → **IP Address**. Finally, select **Save and exit**. An ARP-table entry alone does not save the IP address permanently; if you exit without saving, repeat the procedure.

Serial Interface

The following procedure cannot be used with GNOME485.

1) Switch off the converter power supply.

2) Connect its serial interface to the PC according to the variant:

- **GNOME232:** use a crossover RS232 cable.
- **GNOME422:** use an RS232/RS422 or USB/RS422 converter.

3) Open a serial terminal[10] on the PC and configure these parameters:

Parameter	Setting
Baud rate	9600 Bd
Data bits	8
Parity	none
Stop bits	1
Flow control	none

4) Press and hold `x`, then switch on the converter power supply. Hold the key until the introductory text appears:

```
MAC address 00204A9AE5E2
Software version V6.1.0.2 (060217) XPTEXE
Press Enter for Setup Mode
```

Then press Enter within **3 seconds**, otherwise configuration closes.

5) The converter displays its settings and the Change setup menu. Continue as described under Main Menu.

9.2 Main Menu

Select a menu item by entering the number shown before it and pressing Enter.

The menu structure is as follows:

```
Change Setup:
0 Server
1 Channel 1
3 E-mail
5 Expert
6 Security
7 Defaults
8 Exit without save
9 Save and exit Your choice ?
```

[10] An online terminal can also be used in Chrome, Chromium and Edge, for example https://hhdsoftware.com/online-serial-port-monitor.

9.3 Server

Basic Ethernet settings.

This section contains the following items:

```
IP Address : (192) .(168) .(001) .(122)
Set Gateway IP Address (N) ?
Netmask: Number of Bits for Host Part (0=default) (16)
Change telnet config password (N) ?
```

IP Address

Module IP address. Enter each part of the address separately, pressing Enter between parts.

Default: 192.168.1.254

Set Gateway IP Address

Gateway IP addr

This address need not be entered if the converter operates exclusively as a TCP server.

Enter Y in Set Gateway IP Address to change the gateway IP address. You are then prompted for the gateway address. Enter each part separately, pressing Enter between parts.

Netmask

Specifies the number of bits from the right belonging to the host part of the network mask. The maximum is 32. The default is **8**.

Entered value	Binary mask	Resulting mask
`8`	`11111111 11111111 11111111 00000000`	`255.255.255.0`
`2`	`11111111 11111111 11111111 11111100`	`255.255.255.252`

Change telnet config password

Enter new Password

Sets the password required before configuration through Telnet or the web interface. No password is required for configuration through the serial interface.

Enter Y in Change telnet config password to change the password. You are then prompted for the new password.

To remove a forgotten password, follow Removing the Telnet or Web Password.

9.4 Channel 1

Configuration of serial-interface and Ethernet data-socket parameters:

```
Baudrate (9600) ?
I/F Mode (4C) ?
Flow (00) ?
Port No (10001) ?
ConnectMode (C0) ?
Send '+++' in Modem Mode (Y) ?
Auto increment source port (N) ?
Remote IP Address : (000) .(000) .(000) .(000)
Remote Port (0) ?
DisConnMode (00) ?
FlushMode (00) ?
DisConnTime (00:00) ?:
SendChar 1 (00) ?
SendChar 2 (00) ?
```

Baudrate

Sets the serial baud rate.

Regular mode supports the following baud rates: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 and 230400. High mode allows baud rates up to 921600 Bd. Select the mode using **CPU performance** in the Expert menu, or under CPU Performance Mode in the web interface.

Default: 9600

I/F Mode

I/F mode combines several serial-interface parameters into one setting when configuring through a terminal or the serial interface.

bit	7	6	5	4	3	2	1	0
RS232 or RS422[11]							0	0
RS485[12]							1	1
7 bit					1	0		
8 bit					1	1		
no parity			0	0				
even parity			1	1				
odd parity			0	1				
1 stop bit	0	1						
2 stop bits	1	1						

Table 7: I/F mode

The first column of Table 7 lists the configurable serial-interface parameters. All parameters are entered as a single byte in I/F Mode. Combine the selected table bits into one binary value, convert it to hexadecimal and enter it in I/F Mode.

Example:

1. The required settings are 8 data bits, no parity and 1 stop bit. The table is therefore:

[11] This option is available only on GNOME with an RS232 or RS422 port.
[12] This option is available only on GNOME with an RS485 port.

bit	7	6	5	4	3	2	1	0
RS232							0	0
8 bit					1	1		
no parity			0	0				
1 stop bit	0	1						
	↓	↓	↓	↓	↓	↓	↓	↓
binary	*0*	*1*	*0*	*0*	*1*	*1*	*0*	*0*
hexadecimal	*4*				*C*			

2. The individual bits form the eight-bit number 01001100. Convert it to hexadecimal. If you do not perform this conversion mentally, use a calculator in Programmer mode.[13]
3. Enter the hexadecimal value 4C in I/F Mode.

Flow

Sets serial flow control. Enter the number corresponding to one of the following options:

00 ... No flow control.

01 ... Xon/Xoff flow control.

02 ... Hardware flow control using RTS and CTS.

05 ... XON/XOFF pass characters to host.

Port No

Sets the local port on which the converter waits for a connection.

Default: 10001

Connect Mode

Connect mode combines several Ethernet-interface parameters into one setting when configuring through a terminal or the serial interface.

bit	7	6	5	4	3	2	1	0
Incoming connection[14]								
Never accept	0	0	0					
Always accept (server)	1	1	0					
Response								
None				0				
Single character				1				
Connection after power-up								
None					0	0	0	0
On receiving an RSxxx character					0	0	0	1

[13] In Windows, use Calculator in Programmer mode. Select BIN, enter 01001100 and read the HEX value: 4C.
[14] Configures the module's response to a connection request received using UDP.
[15] A connection is attempted when the configured character is received. Selecting this item prompts you to enter the character on the next terminal line.

bit	7	6	5	4	3	2	1	0
On receiving the specified character[15]					0	0	1	1
Manual connection					0	1	0	0
Automatic					0	1	0	1
IP address list[16]			1	0				
Datagram type								
Direct UDP[17]					1	1	0	0
Modem emulation								
Echo enabled				1	0	1	1	0
No echo				0	0	1	1	0
Numeric modem responses				1	0	1	1	1

Table 9: ConnectMode

The first column lists the configurable Ethernet-interface parameters. All parameters are entered as a single byte in ConnectMode. Combine the selected table bits into one binary value, convert it to hexadecimal and enter it in ConnectMode. See the I/F Mode conversion example.

Response

Option	Description
None	No response
Single character	Sends a serial character indicating a connection-state change: C connected D disconnected N server unavailable

Connection after Power-up

Option	Description
None	No connection is established after power-up.
On receiving an RSxxx character	Attempts to connect to the remote IP address when any character arrives on the serial interface.
Manual connection	Attempts to connect to the remote IP address when a serial connection command arrives in the format CIP address/[port]. Example RSxxx command connecting to IP address 192.168.1.105 on port 4567: C192.168.1.105/4567 If the subnet mask leaves only 8 host bits (255.255.255.0), the abbreviated command C105/4567 is sufficient.
Automatic	Immediately after power-up, attempts to connect to the remote IP address.

[16] Enables the IP Address List (Hostlist).
[17] Selecting this option prompts for the datagram type. Enter 01.

Modem Emulation

All modem commands must begin with AT; otherwise they are ignored. The modem responds to each valid command with Ok or 0. Once connected, only data can be transferred; commands cannot be entered directly. Enter +++ to return to command mode. Use ATH to disconnect.

The module recognises the following AT commands in modem-emulation mode:

Command	Description
ATDT[IP],[port] or ATDT[IP]/[port]	Attempts to connect to the specified IP address and port.
ATDT[IP]	Attempts to connect to the specified IP address.
ATH	Disconnects. If data is being transferred, first enter +++ to return to command mode. To disconnect during data transfer, enter +++ATH.
ATS0=n	With n=0, Ethernet connections to the module's RSxxx serial port are disabled. With n=1, connections are enabled.
ATEn	Enables/disables echo[18]. In addition to commands, the following responses are displayed: OK command completed successfully CONNECT connected NO CARRIER disconnected RING n.n.n.n remote IP address n.n.n.n connected
ATVn	Single-character responses: 0 OK 1 connected 2 ringing 3 no carrier 4 error

IP Address List (Hostlist)

Allows up to 12 IP addresses and ports to be defined[19], which the converter attempts to connect to after power-up. Once a connection succeeds, the address search stops. Example settings are shown in Fig. 28. Enter each part of the IP address separately, pressing Enter between parts. After entering the addresses, two further parameters are requested:

[18] When echo is enabled, sent commands are echoed back. This is particularly useful when entering commands through a terminal.
[19] This option becomes available after selecting IP Address List in the preceding table.

```
Change Setup:
  0 Server configuration
  1 Channel 1 configuration
  3 E-mail settings
  5 Expert settings
  6 Security
  7 Factory defaults
  8 Exit without save
  9 Save and exit            Your choice ? 1

Baudrate (9600) ?
I/F Mode (4C) ?
Flow (00) ?
Port No (10001) ?
ConnectMode (C0) ?25

Hostlist :

No Entry !

Change Hostlist ? (N) Y
01. IP address : (000) 172.(000) 19.(000) 0.(000) 1     Port :
(0) ?23
02. IP address : (000) 172.(000) 19.(000) 0.(000) 2     Port :
(0) ?3001
03. IP address : (000) 172.(000) 19.(000) 0.(000) 3     Port :
(0) ?10001
04. IP address : (000) .(000) .(000) .(000)

Hostlist :
01. IP : 172.019.000.001  Port : 00023
02. IP : 172.019.000.002  Port : 03001
03. IP : 172.019.000.003  Port : 10001

Change Hostlist ? (N) N

Hostlist Retrycounter  (3) ?
Hostlist Retrytimeout  (250) ?
DisConnMode (00) ?
FlushMode   (00) ?
```

Fig. 28: Telnet, RSxxx: Hostlist

Hostlist Retrycounter: Number of connection attempts for each entry. Range 1 to 15; default 3.

Hostlist Retrytimeout: Wait time in milliseconds for each connection attempt. Range 1 to 65535; default 250 ms.

Send '+++' in Modem Mode

Allows the +++ character sequence to be sent in modem mode.

Auto increment source port

Allows the converter port to be incremented automatically in active mode (client mode).

Remote IP Address

Sets the remote IP address to which the converter connects.

Enter each part of the IP address separately, pressing Enter between parts.

Remote port

Sets the remote port to which the converter connects.

DisConnMode

Disconnect Mode combines several automatic-disconnection parameters into one setting when configuring through a terminal or the serial interface.

bit	7	6	5	4	3	2	1	0
Enter Telnet password				1	0	0	0	0
Enable TruPort (NVT protocol)[20]		1	0	0	0	0	0	0

Table 13: DisconnectMode

The first column lists the individual parameters, entered as a single byte in DisConnMode. Combine the selected table bits into one binary value, convert it to hexadecimal and enter it in DisConnMode. See the I/F Mode conversion example.

FlushMode

FlushMode combines several buffer-management parameters into one setting when configuring through a terminal or the serial interface. It also enables packetisation.

bit	7	6	5	4	3	2	1	0
Input buffer (RSxxx → Ethernet)[21]								
Clear on connection initiated by converter				1				
Clear on connection initiated from Ethernet			1					
Clear on disconnection		1						
Output buffer (Ethernet → RSxxx)								
Clear on connection initiated by converter								1
Clear on connection initiated from Ethernet							1	
Clear on disconnection						1		
Packetisation								
Enable packetisation		1			0			

Table 14: FlushMode

The first column lists the individual parameters, entered as a single byte in FlushMode. Combine the selected table bits into one binary value, convert it to hexadecimal and enter it in FlushMode. See the I/F Mode conversion example.

When packetisation is enabled, the following additional byte becomes available:

Pack Cntrl

This byte controls packetisation, which can be enabled through FlushMode as described above.

bit	7	6	5	4	3	2	1	0
Packet assembly interval								
12 ms							0	0
52 ms							0	1
250 ms							1	0
5 sec							1	1
Trailing characters								

[20] NVT allows serial-interface parameters to be changed during an established connection: baud rate, data bits, parity and stop bits. The protocol commands are specified in RFC 2217.

[21] The corresponding buffer is cleared when any of the three listed events occurs.

bit	7	6	5	4	3	2	1	0
None					0	0		
One					0	1		
Two					1	0		
Sending								
Two-byte terminating sequence				1				
Immediate sending	0	0	1					

Table 15: Pack Control

The first column lists the individual parameters, entered as a single byte in Pack Cntrl. Combine the selected table bits into one binary value, convert it to hexadecimal and enter it in Pack Cntrl. See the I/F Mode conversion example.

Packet Assembly Interval

Defines the idle interval after which received serial data is assembled into a packet and sent over Ethernet. No RSxxx serial data may arrive during this interval.

Trailing Characters

Bits 3 and 2 specify how many characters are included in the packet after a terminating character or sequence is recognised: none, one or two. This can include, for example, a checksum after the message terminator.

Sending

Bit 4 enables a **two-byte terminating sequence**: SendChar 1 and SendChar 2 are evaluated together, in that order. When disabled, the two characters are evaluated independently. This does not group transmitted data into pairs.

Bit 5 enables **immediate sending** when the sending condition (terminating character or timeout) is recognised. When disabled, characters already waiting in the serial buffer are also included. Bits 3 and 2 independently specify the number of trailing characters.

DisConnTime

If enabled, an established Ethernet connection is terminated after the configured period without communication in either direction.

Enter the interval as mm:ss (minutes:seconds). Enter 00:00 to disable this function.

SendChar

Each parameter accepts one hexadecimal character value. If a packet is terminated by only one character, use SendChar 1. This setting is directly related to Pack Cntrl.

9.5 Email

Configures up to 3 events that send a notification e-mail to the specified address or addresses. An event can be one character or a sequence of two configurable characters transferred from the serial interface to Ethernet.

Trigger input1 to 3 do not apply to GNOME converters.

```
Mail server (0.0.0.0) ? (000) .(000) .(000) .(000)
Unit name () ?
Domain name () ?
Recipient 1 () ?
Recipient 2 () ?
- Trigger 1
Enable serial trigger input (N) ?
Trigger input1 [A/I/X] (X) ?
Trigger input2 [A/I/X] (X) ?
Trigger input3 [A/I/X] (X) ?
Message () ?
Priority (L) ?
Min. notification interval (1 s) ?
Re-notification interval (0 s) ?
- Trigger 2
Enable serial trigger input (N) ?
Trigger input1 [A/I/X] (X) ?
Trigger input2 [A/I/X] (X) ?
Trigger input3 [A/I/X] (X) ?
Message () ?
Priority (L) ?
Min. notification interval (1 s) ?
Re-notification interval (0 s) ?
- Trigger 3
Enable serial trigger input (N) ?
Trigger input1 [A/I/X] (X) ?
Trigger input2 [A/I/X] (X) ?
Trigger input3 [A/I/X] (X) ?
Message () ?
Priority (L) ?
Min. notification interval (1 s) ?
Re-notification interval (0 s) ?
```

Mail server

Sets the SMTP server address for outgoing e-mails: the IP address of the SMTP server specified in Domain name.

Unit name

GNOME module name used as the sender name in notification e-mails.

Domain name

Full SMTP server domain name, corresponding to the IP address specified in Mail server.

Example: smtp.server.com

Recipient

Notification e-mail recipient addresses. Two different addresses may be specified, one in Recipient 1 and the other in Recipient 2.

Example: name@server.net

Serial Sequence

Sets one or two hexadecimal character values that trigger a notification e-mail when received on the serial interface.

This item can be configured separately for each of the three events (Trigger 1, Trigger 2, Trigger 3).

Message

Text of the message sent when the Serial Sequence condition is met.

This item can be configured separately for each of the three events (Trigger 1, Trigger 2, Trigger 3).

Priority

Event priority: H (high) or L (low). If several events occur simultaneously, the higher-priority event is handled first. Events with the same priority are handled in numerical order (Trigger 1, Trigger 2, Trigger 3).

This item can be configured separately for each of the three events (Trigger 1, Trigger 2, Trigger 3).

Minimal notification interval

Sets how often a notification e-mail may be sent. If the condition occurs several times during this interval, only one e-mail is sent, following its first occurrence.

This item can be configured separately for each of the three events (Trigger 1, Trigger 2, Trigger 3).

Re-notification interval

Sets the minimum interval between notification e-mails while the condition remains active.

This item can be configured separately for each of the three events (Trigger 1, Trigger 2, Trigger 3).

9.6 Expert

These settings are for experienced users only!

```
TCP Keepalive time in s (1s - 65s; 0s=disable): (45) ?
ARP Cache timeout in s (1s - 600s) : (600) ?
CPU performance (0=Regular, 1=Low, 2=High): (0) ?
Disable Monitor Mode @ bootup (N) ?
RS485 tx enable active level (0=low; 1=high): (0) ?
HTTP Port Number : (80) ?
SMTP Port Number : (25) ?
MTU Size (512 - 1400): (1400) ?
Enable alternate MAC (N) ?
Ethernet connection type: (0) ?
```

TCP Keepalive time in s

TCP keepalive interval. Range 1 – 65 s; a value of 0 disables this function.

Default: 45 s.

ARP Cache timeout in s

ARP-table lifetime. Range 1 – 600 s.

Default: 600 s.

HTTP Port Number

HTTP connection port number.

Default: 80.

SMTP Port Number

SMTP connection port number.

Default: 25.

9.7 Security

These settings are for experienced users only!

```
Disable SNMP (N) ?
SNMP Community Name (public):
Disable Telnet Setup (N) ?
Disable TFTP Firmware Update (N) ?
Disable Port 77FEh (N) ?
Disable Web Server (N) ?
Disable Web Setup (N) ?
Disable ECHO ports (Y) ?
Enable Enhanced Password (N) ?
Disable Port 77F0h (N) ?
```

Disable SNMP

Disables SNMP communication.

SNMP Community Name

Sets the SNMP community name used to read from or write to the device. Up to 13 characters may be entered.

Default: public

Disable Telnet Setup

Disables configuration through Telnet.

Disable TFTP Firmware Update

Disables TFTP, preventing firmware updates over Ethernet.

Enable Enhanced Password switches enhanced password support. When disabled, the maximum length is 4 characters; when enabled, it is 16 characters. See the web configuration password. Availability depends on the firmware version.

9.8 Factory Defaults

Press 7 to restore the converter's default settings, described under Default Settings.

9.9 Exit without save

Exits configuration without saving changed parameters.

9.10 Save and exit

Saves the changes. If any setting was changed, the converter restarts. Reconnect using the new parameters, for example a changed IP address or port.

9.11 Default Settings

These are the factory settings, also restored by Apply Factory Defaults in the web interface or Factory Defaults in Telnet.

Serial Interface and Ethernet

Parameter	Default value
Baudrate	9600 (Bd)
I/F Mode	4C (8 bits, no parity, 1 stop bit)
FLOW	00 (no flow control)
Port No	10001
ConnectMode	C0 (server)
Hostlist retry counter	3
Hostlist retry timeout	250 (msec)
Start character for serial channel 1	0x0D (CR)
Remote IP Adres	000.000.000.000
IP Address	192.168.1.254
Gateway Address	0.0.0.0
Remote Port	0
DisConnMode	00
FlushMode	00
DisConnTime	00:00
SendChar 1	00
SendChar 2	00

Expert Settings

Parameter	Default value
TCP keepalive (sec)	45
ARP cache timeout (sec)	600
HTTP port number	80
SMTP port number	25

Security Settings

Parameter	Default value
SNMP	Enabled
SNMP community name	public
Telnet setup	Enabled
TFTP download	Enabled

Parameter	Default value
Port 77FEh	Enabled
Web Server	Enabled
ECHO	Disabled
Enhanced password	Disabled
Port 77F0h	Enabled

E-mail

Parameter	Default value
Priority	L
Min. notification interval	1 sec
All other parameters	0

10 FAQ

10.1 Removing the Telnet or Web Password

The following procedure cannot be used with GNOME485.

The Telnet or web password can only be removed through the serial interface. It cannot be removed remotely over Ethernet. Proceed as follows:

1) Connect the converter to your PC. For GNOME232, use a crossover RS232 cable; for other converters, connect to the PC's RS232 port through a suitable converter.
2) Disconnect GNOME from its power supply.
3) Open the serial port connected to your converter in a terminal program[10]. Set these communication parameters:
   - **Baud rate:** 9600 Bd
   - **Data bits:** 8
   - **Parity:** none
   - **Stop bits:** 1
   - **Flow control:** none
4) Press and hold x, then connect the converter power supply. The terminal displays introductory text. Press Enter immediately, within 3 seconds, to enter configuration mode.
5) The same menu as in Telnet configuration appears.
6) Select Server. In Change telnet config password, enter Y to change the parameter.
7) At Enter new Password:, enter a new password or leave the value empty to remove it.
8) Select Save and exit to save the new password setting.

11 Technical Parameters

Ethernet:

Parameter	Value
Ethernet connection	RJ45 Ethernet 10/100BASE-T
Interface compatibility	Ethernet version 2.0/IEEE 802.3
Supported protocols	ARP, UDP/IP, TCP/IP, Telnet, ICMP, DHCP, TFTP, BOOTP, Auto IP, HTTP
Transmit buffer (Ethernet > serial interface)	1.5 kB
Receive buffer (serial interface > Ethernet)	2 kB

Power Supply:

Supply ranges and galvanic-isolation variants are listed in the tables under About the Device.

Parameter	Value
Current consumption – at 12 V	typically 80 mA
Current consumption – at 5 V	typically 190 mA

RS232 on GNOME232:

Parameter	Value
Connector	D-SUB 9 M (Canon 9; D-SUB 9 F on request), including ISOL variants; see Fig. 31
Signals used	RXD, TXD, RTS, CTS, DTR, GND
Voltage levels	standard RS232

RS232 on GNOME232 TTL:

Parameter	Value
Connector	PSH – 4-pin connector with a 2.54 mm pitch
Signals used	RXD, TXD
Voltage levels	TTL 3.3 V

RS485 on GNOME485:

Parameter	Value
Connector	removable terminal block
Signals used	RxTx+ (A), RxTx- (B)
Termination	120 Ω (enabled by the IMP jumper)[22]
Bias	22 kΩ (permanently connected) + 680 Ω (enabled by BIAS jumpers)[22]

[22] GNOMExxx ISOLxx has no internal jumpers for bias and termination resistors. For further information, see Connections.

RS422 on GNOME422:

Parameter	Value
Connector	removable terminal block
Signals used	Tx+, Tx-, Rx+, Rx-
Termination	External resistor; see Connections
Bias	22 kΩ (permanently connected); additional BIAS resistors are connected externally

Other Parameters

GNOME232:

Parameter	Value
Weight	85 g
Ingress protection	IP30
Operating temperature	–25 to +85 °C[23]
Operating humidity	0 to 90 %RH, non-condensing
Dimensions	57 mm × 25 mm × 42 mm

GNOME TTL:

Parameter	Value
Weight	20 g
Ingress protection	IP00
Operating temperature	–25 to +85 °C[23]
Operating humidity	0 to 90 %RH, non-condensing
Dimensions	52 mm × 18 mm × 29 mm
Mounting holes	4 × ∅ 3.2 mm

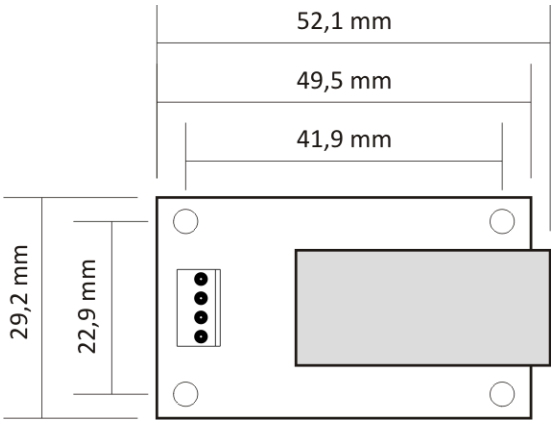


Fig. 29: GNOME TTL board dimensions

[23] Limited to +75 °C in High CPU performance mode; see CPU Performance Mode for configuration.

GNOME485:

Parameter	Value
Weight	60 g
Ingress protection	IP30
Operating temperature	–25 to +85 °C[23]
Operating humidity	0 to 90 %RH, non-condensing
Dimensions	54 (63) mm × 24 mm × 33 mm
ISOL variant dimensions	54 (63) mm × 24 mm × 41 mm

For GNOME485, its ISOL variants and GNOME422, the 54 mm length is measured with the terminal block removed; 63 mm includes the connected terminal block.

GNOME422:

Parameter	Value
Weight	70 g
Ingress protection	IP30
Operating temperature	–25 to +85 °C[23]
Operating humidity	0 to 90 %RH, non-condensing
Dimensions	54 (63) mm × 24 mm × 41 mm

11.1 Variants

Communication Encryption:

- No encryption *(standard version)*
- 128/192/256-bit Rijndael (AES) encryption

Mounting (Not Available for GNOME TTL):

- No mounting bracket *(standard version)*
- With a DIN-rail bracket



Fig. 30: With a DIN-rail bracket

Power Supply (Not Available for GNOME TTL):

- Supply ranges and galvanic-isolation variants are listed in the tables under About the Device

RS232 Connector (GNOME232 Only):

- CAN 9 M (Cannon 9, male) *(standard version)*

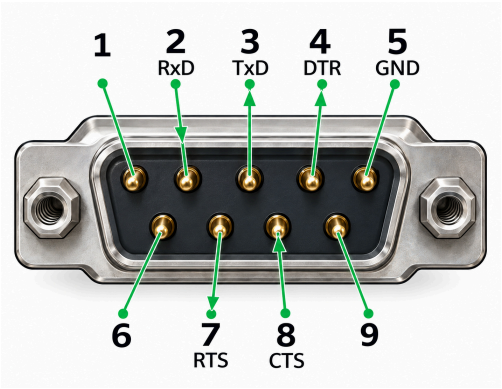


Fig. 31: Pin assignment of the CAN 9 M connector on the converter; front view.

- CAN 9 F (Cannon 9, female) with a DCE signal assignment for direct connection to a PC

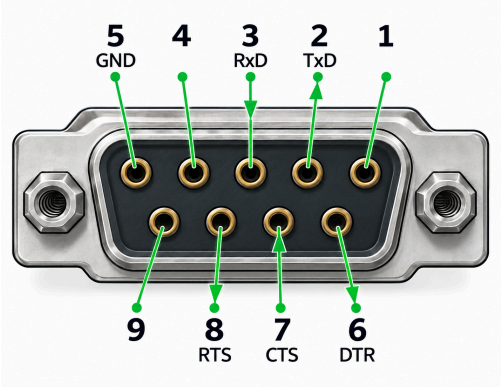


Fig. 32: Pin assignment of the CAN 9 F connector on the converter; front view.

Please contact us for other specific requirements concerning the construction and functions of GNOME converters.

Papouch s.r.o.

Industrial data transfer, line and protocol converters, RS232, RS485, RS422, USB, Ethernet, LTE, WiFi, measurement modules, intelligent temperature sensors, I/O modules, custom development and manufacturing.

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