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# Ethernet to RS232 converter **GNOME**

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Easy to use

Security features

Virtual serial port

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# GNOME

## Brief Datasheet

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**BASIC INFORMATION**

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**Description**

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GNOME is a simple and inexpensive converter between a 10/100 Ethernet interface and an RS232 line. It enables users to simply connect devices with the RS232 interface to an Ethernet line or to extend a serial line to the other end of the world via the Internet. Connection of the RS232 line connector to the GNOME module is identical with the connectors D-SUB9 of a PC. This solution includes a "virtual serial port" – software that creates a new serial port in the Windows operating system, and this port is directed to the GNOME module via the Ethernet interface. Configuration with the aid of intuitive control software is easy.

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**Applications**

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- A remote RS232 line as another COM port in your Windows system
- Connection to the Ethernet environment of devices communicating via an RS232 line
- Extension of an RS232 serial line via Ethernet
- Virtual port – controlling the remote line with the aid of its original software
- Internet communication with remote devices
- Connection of two RS232 lines via Ethernet

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**Features**

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- Converting a serial line to Ethernet
- Connecting via an RJ45 connector to a 10/100Base-T Ethernet network
- Miniature dimensions – easy to integrate into the existing devices
- Easy configuration using the included software
- Configuration with the aid of Windows software, Telnet Protocol, or a WEB interface
- TCP and UDP protocols
- The RS232 line is connected to a D-SUB 9 connector (male)
- Transmission speed from 300 Bd to 460 kBd
- Signals used: RXD, TXD, RTS, CTS, DTR, and GND
- Flow control RTS/CTS, Xon/Xoff or none
- The connected devices can be supplied with power from the DTR signal
- Power supply – GNOME: 4 to 6 V
- Power supply – GNOME12: 5 to 36 V
- Indication of power supply, data transmission, network connection and activity
- Dimensions 54 × 24 × 33 mm

## Types of communication

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The GNOME converter uses two ports for communication: data and setup. The data port (for the standard data transmission) is optional and its standard setting is 10001. The setup port is 9999.

### TCP server/client

Upon switching on, the GNOME module expects data from the serial line and also connection request from the Ethernet interface.

If the data comes from the serial line, the TCP client mode is activated (cf. below). If a connection request comes, the module is switched over to the TCP sever mode (cf. below).

The module may remain in the activated mode, or – after a time lag – cancel the mode and wait for data from the serial line or Ethernet interface.

### TCP server

Upon switching on, the GNOME module listens on the slected port and waits for the client connection.

As soon as a client is connected, data from the Ethernet is immediately sent to the serial line and vice versa. If the client is not connected and data from the serial line is coming, it is stored in a cache and sent immediately upon the client connecting to the server.

If the client is silent or terminates the connection incorrectly, GNOME terminates its connection after a preset time lag.

### TCP client

When idle, the GNOME module waits for data from the serial line. As soon as data is received, the GNOME module tries to connect to the server at a given IP address. If the connection cannot be established, the data is stored in a cache memory. Upon establishing the connection, the data is sent out and data from Ethernet is transmitted to the RS232 serial line.

### UDP

The Ethernet data is expected on a preset port. When data comes from the RS232 serial line, it is sent to the preset IP address. Within a UDP transmission, response of the opposite side is not tested; the application should be independently protected from a data loss.

## Technical Parameters

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Connection to Ethernet.....	TBase 10/100 RJ45
RS232 connector.....	D-SUB9M (plug)
RS232 signal distribution.....	DTE, cf. Fig. 1
RS232 signals used.....	TxD, RxD, RTS, CTS, DTR
RS232 voltage levels.....	typically $\pm 6$ V
DTR signal.....	permanent +6 V
Data flow control.....	none / XON/XOFF / RTS/CTS
Cache memory.....	2 kB for transmission, 2 kB for receipt
Power supply (GNOME).....	4 to 6 V (typ. 220 mA; max. 250 mA)
Power supply voltage (GNOME12).....	5 to 36 V
Current consumption (GNOME12) – at 5 V...typically	190 mA
Current consumption (GNOME12) – at 12 V .typically	80 mA
Current consumption (GNOME12) – at 30 V .typically	35 mA

## Installing options

### Power supply voltage:

- **GNOME:** 4 to 6 V (*standard version*)
- **GNOME12:** 5 to 36 V

### Communication encrypting:

- No encrypting (*standard version*)
- 128-bit encrypting, Rijndael algorithm

### RS232 connector:

- D-SUB 9 M (Cannon 9, plug) (*standard version*)
- D-SUB 9 F (Cannon 9, socket) with DCE signal distribution for direct connection to a PC (as the counter-connector Fig. 1)

Please do not hesitate to contact us if you have specific requirements for the GNOME module's workmanship and functionality.

## Connection of module

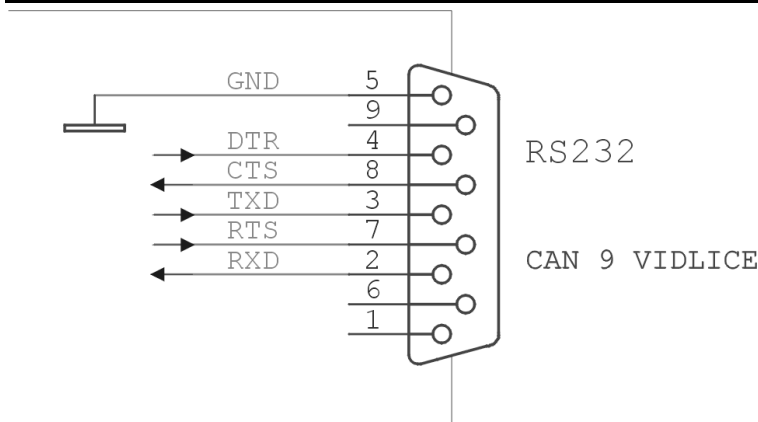


Fig. 1 – connection of RS232

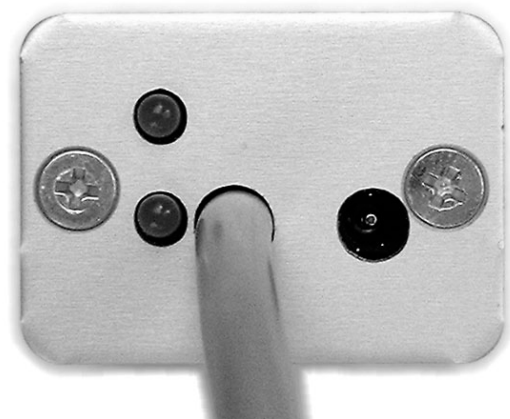


Fig. 2 – RS232 and power-supply connector

The GNOME module is equipped with two connectors. The serial line is connected via an integrated cable with a D-SUB 9 connector. (The variant with a standard RS232 (D-SUB 9 M) connector is connected to a PC via a crossed cable.) The connector layout is shown in Fig. 1. The Ethernet interface is connected to the front RJ45 connector. It goes via a standard (uncrossed) cable to a HUB or Switch.

The power supply connector is situated on the rear side of the module (Fig. 2). It is a coaxial 3.8 × 1.3 mm connector. A suitable connector is shown in the Figure on the right hand side. The plus pole (+) is inside.

The following optional accessories of the converter can be ordered:

- Power supply (230 V adaptor) and cable terminated with the corresponding connector (3.8 × 1.3 mm).
- A cable length of 2 m with a 3.8 × 1.3 mm connector on one end. Free wires for connection to a power source are provided on the other end of the cable length.



## Indicators

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### ON indicator

Green. Top LED in Fig. 2.  
Function: Indicator of power supply voltage.

### DCD indicator

Yellow. Bottom LED in Fig. 2.  
Function: It is on when connection is established.

### Indicators on the Ethernet connector

Link LED (Left Side)		Activity LED (Right Side)	
Color	Meaning	Color	Meaning
Off	No Link	Off	No Activity
Yellow	10 Mbps	Yellow	Half-Duplex
Green	100 Mbps	Green	Full-Duplex

## BASIC NETWORK INFORMATION

### IP address

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Within a network, GNOME must have the following settings: subnet mask, gateway IP address, and the unique IP address. The subnet mask is set as 255.255.255.0<sup>1</sup> by the manufacturer; and the IP address as 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**

If you change any of these IP settings, we recommend you to put down the new values:

IP address:                    \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_

Gateway IP address:         \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_

Subnet mask:                  \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_

### MAC address

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The unique address shown on the GNOME module's label (on the bottom or side). It is a unique address of the module. It consists of six hexadecimal numbers separated with dashes – in a format such as 00-20-4A-xx-xx-xx (where xx are the unique numbers shown on the label).

MAC address:       **00-20-4A-** \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

<sup>1</sup> This subnet mask is also referred to as a "type C" mask..

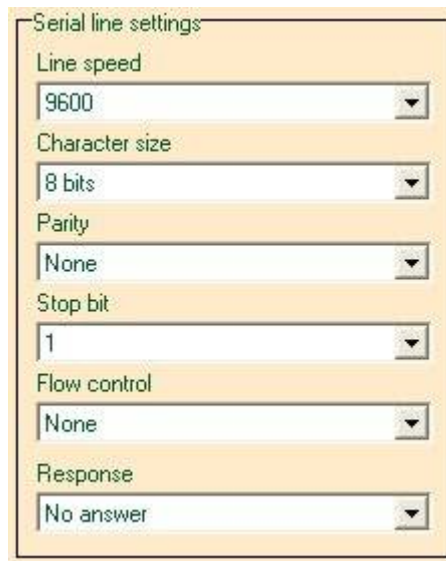
## HOW TO EASILY SET UP YOUR GNOME

This chapter gives examples of quick and easy setup of the GNOME converter for typical examples of use. Select the example that is the closest to your application. (The examples are given for the basic setting of the converter.)

### **An Ethernet – RS232 converter (basic setting)**

This setting is meant for equipment which requires permanent connection to RS232.

- 1) Connect the converter to your network and ask your network administrator for the basic network parameters to be assigned to the converter (cf. the preceding page: the IP address, gateway IP address, and the subnet mask).
- 2) Activate the supplied configuration program<sup>2</sup> and click on "IP setting." A wizard is thus opened, in which you first enter the MAC address of the converter (written on the label on the module's side) and then the basic network parameters. (Cf. the description of this wizard under the heading "Set the IP settings" on page 13, and also Fig. 7 and Fig. 8.)
- 3) The GNOME module is now set as an Ethernet/RS232 converter with the selected IP address and the following parameters of the serial line: speed 9,600 Bd, 8 data bits, parity – none, and one stop-bit. If you need to change the parameters of the serial line, click on the "Data channel setting" in the main window of the program; at the top central area there is a frame with the serial line parameters (cf. Fig. 3).



*Fig. 3 – serial line parameters*

- 4) Save the changed settings in the converter by clicking on the "Settings" button in the bottom area of the window. The GNOME module is thus set as an Ethernet/RS232 converter. This setting is suitable for the basic function of the converter, without additional options for data flow control, timing, or packet creation.

<sup>2</sup> The program can be downloaded, at any time and free of charge, at [www.papouch.com/en/products.asp?dir=ethernet](http://www.papouch.com/en/products.asp?dir=ethernet).



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## Connecting an RS232 device via Ethernet to a "local" COM port

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### Extension of an RS232 serial line via Ethernet

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The following setting is suitable for equipment which requires permanent connection to RS232.

- 1) Connect GNOME to an Ethernet network.
- 2) Install the "Virtual Serial Port"<sup>3</sup>
- 3) Connect your RS232 device to the module's serial line GNOME.
- 4) On a computer connected to an Ethernet network (which must be interconnected with the network in which the GNOME module is connected), activate the application which communicates with your device on the RS232 line, and select from the ports' list the COM port set by the Virtual Serial Port..
- 5) The program now works as if via the RS232 line, which is in fact connected via the GNOME module and an Ethernet interface.

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## Two RS232 lines interconnected via Ethernet

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Two devices with serial lines can be interconnected via Ethernet using two GNOME modules.

### Setting the first GNOME module

- 1) Connect the converter to your network and ask your network administrator for the basic network parameters to be assigned to the converter (cf. page 7: the IP address, gateway IP address, and the subnet mask).
- 2) Activate the supplied configuration program<sup>4</sup> and click on "IP setting." A wizard is thus opened, in which you first enter the MAC address of the converter (written on the label on the module's side) and then the basic network parameters. (Cf. the description of this wizard under the heading "Set the IP settings" on page 13, and also Fig. 7 and Fig. 8.)

### Setting the second GNOME module

- 3) Select an IP address for this module (it must be different from the address of the first module).<sup>5</sup> Activate the configuration program and set the address, using the procedure similar to setting the first module.<sup>6</sup> If the second module is in another network, the gateway and subnet mask will probably have to be changed as well.

### Common settings

- 4) Set the remote IP address on both converters. This means: for each of these two converters, set the IP address of the opposite converter in "Remote IP address" item of the "Data channel settings" section of the main window to.

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<sup>3</sup> A detailed description of the installation is <http://www.lantronix.com/device-networking/utilities-tools/com-port-redirector.html> .

<sup>4</sup> The program can be downloaded, at any time and free of charge, at [www.papouch.com/en/products.asp?dir=ethernet](http://www.papouch.com/en/products.asp?dir=ethernet) .

<sup>5</sup> If you are not sure what values of the IP address, gateway and mask to set, contact your network administrator, who will give you the data.

<sup>6</sup> If both converters are connected within the same network and the first converter has the original IP address (from the manufacturer), disconnect the first converter before connecting the second one. Two devices with identical IP addresses cannot be connected within one network.

- 5) Further, set the Local and Remote ports. This means: for each of these two converters, set the same value (we recommend 1001) in the "Local port" and "Remote port" items of the "Data channel settings" section of the main window.
- 6) Set the remote server/client mode on both converters. The server mode is the default, hence setting the client mode will be sufficient. For both converters, select "Establish connection upon receipt of any character" in the "Active connection" item of the "Data channel settings."
- 7) The initial configurations of the serial ports on both modules have the following parameters:  
Speed..... 9,600 Bd  
Number of data bits..... 8  
Parity..... none  
Number of stop-bits..... 1  
If you need to change the parameters of the serial line, click on the "Data channel setting" in the main window of the program; at the top central area there is a frame with the serial line parameters (cf. Fig. 3). Save the changed settings by clicking on the "Settings" button in the bottom area of the converter configuration windows.
- 8) The setting procedure is completed.



## METHODS OF SETTING THE PARAMETERS

- 1) Windows configuration software (via Ethernet)
- 2) Using a Web browser (via Ethernet)<sup>7</sup>

## CONFIGURATION SOFTWARE

The configuration software can be used for easy settings of the converter parameters. The main window of the program is shown in Fig. 4. (By clicking on the flag icons in the top right corner you can switch between Czech and English.)



Fig. 4 – main window of configuration program

**If you need to configure the converter after the first connection in your network, we recommend you to follow the instructions given under the heading "Set the IP" on page 13.**

<sup>7</sup> The GNOME provide its own WEB pages. It could be browsed by entering the Gnome's IP address to address field of your Internet browser. The Internet browser has to have installed a plug-in for Java applet support.

## Search by IP address

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This command enables you to find the GNOME module in the network according to its IP address. When you click on this button, the window shown in Fig. 5 is displayed. Write the IP address in the line and push "OK."



Fig. 5 – entering the IP address to look for

If the converter can be found at the given IP address, its settings are displayed in the settings window.

### Not found?

- 1) Check whether the converter is connected and is active (indicators on its Ethernet connector are on or flashing).
- 2) Check the correct IP address (it is set to 192.168.1.254 by the manufacturer).
- 3) The converter's IP address may not be compatible with your network. Change the IP address using the "Set the IP" command (page 13).

### I don't know the converter's IP address

Search the GNOME by MAC address (written on the label on the modules' side) using the "Find by MAC" command (page 13) or assign to your converter an IP address suitable for your network. You can set the IP address using the "Set the IP" procedure (page 13).

## Search by MAC address

You can use this command if you need to find the converter according to its unique MAC address (it is written on the label on the module's side). When you click on this button, the window shown in Fig. 6 is displayed. Write the MAC address<sup>8</sup> and push "OK."

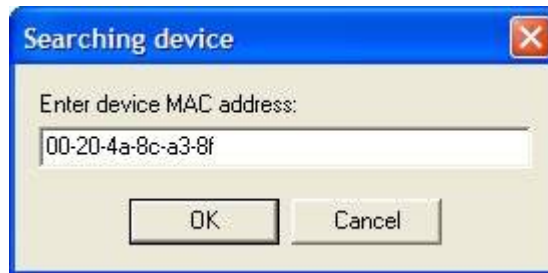


Fig. 6 – entering the MAC address to look for

If the converter with the given address can be found, its settings are displayed in the settings window.

### Not found?

- 1) Check whether the converter is connected and is active (indicators on its Ethernet connector are on or flashing).
- 2) Check the correct MAC address on the label placed on the converter.
- 3) The converter's IP address may not be compatible with your network. Change the IP address using the "Set the IP" command (page 13).

## Set the IP address

Using this command, you can assign a new IP address to the converter. This procedure is specifically suitable for connecting converters in production, because the basic parameters can be adapted for a new network. When you click on this button, the window shown in Fig. 7 is displayed. Write the MAC address to look for<sup>8</sup> and push "OK."

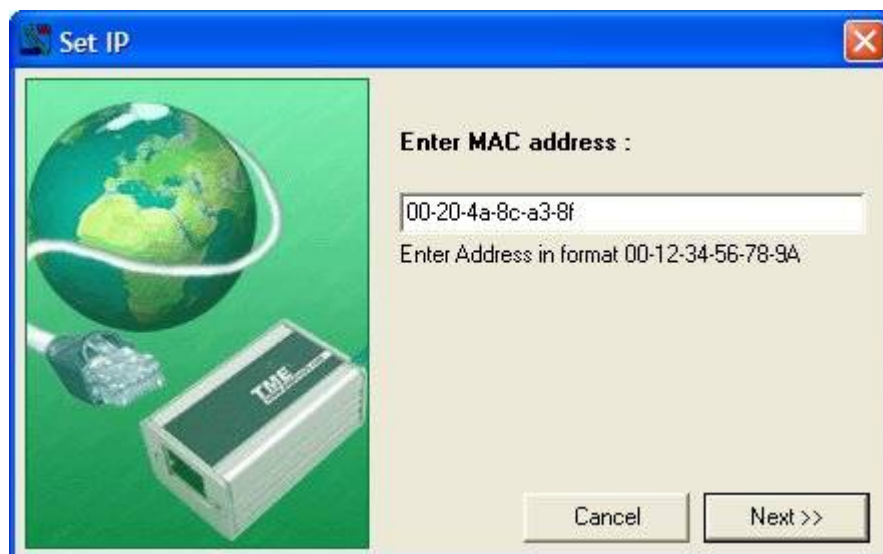


Fig. 7 – the first screen of the new IP setting wizard

<sup>8</sup> The address is written on the label placed on the converter. It can be entered in the format AB-CD-EF-GH-IJ-KL or ABCDEFGHIJKL. It is not case sensitive (you can enter lower-case or capital letters).

The entered MAC address is looked for. When it is found, the screen shown in Fig. 8 is displayed.

Set parameters suitable for your network in the screen shown in Fig. 8. If you are not sure what parameters you should choose, contact your network administration, who will give you the required data.

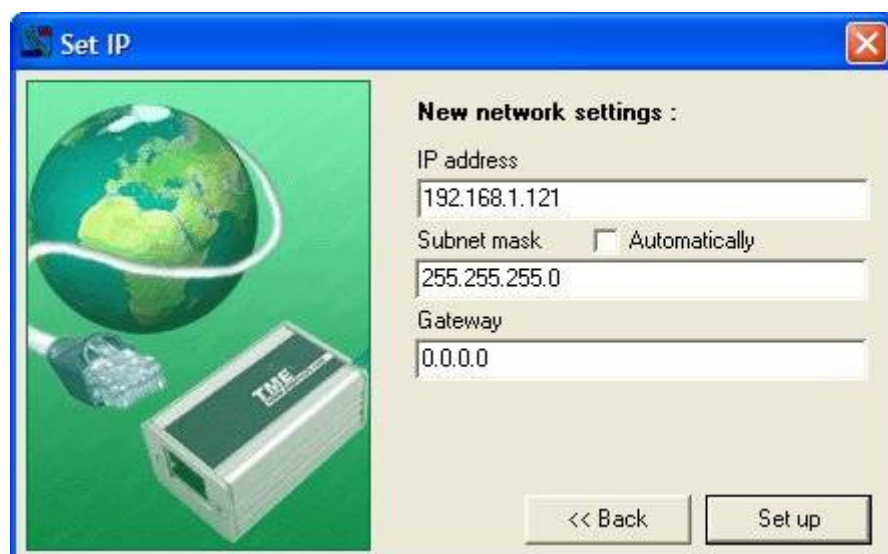


Fig. 8 – IP settings wizard > setting the IP address, subnet mask and gateway

The parameters are changed upon clicking on "Set up".

**The module is now set as an Ethernet/RS232 converter, with the IP address, subnet mask and gateway you chose, and the other parameters set by the manufacturer. No more settings are necessary for the basic functions of an Ethernet/RS232 converter<sup>9</sup>.**

A small window will be displayed, asking if you wish to "set the device." If you click "Yes," the program activates the procedure for setting additional parameters of the converter. The "Data channel settings" section of the main window will be displayed (cf. chapter "Data channel settings" on page 15).

<sup>9</sup>Within the initial setting, the RS232 line of the converter has the following parameters: speed: 9,600 Bd, number of bits: 8, parity: none, number of stop-bits: 1.

## Data channel settings

When you click on the "data channel settings" tab after connecting the converter, the setting window (Fig. 9) is displayed.

Fig. 9 – Data channel settings

### Local port

*Data channel options > Ethernet settings > Local port*

Default value: 10001

Recommended references: Fig. 9

Number of the port on which the converter expects connection from Ethernet.

This item is only meaningful if the "Incoming connection" option (cf. page 16) is set to "Allowed" (the so-called TCP Server mode).

### Remote port

*Data channel options > Ethernet settings > Remote port*

Default value: 0

Recommended references: Fig. 9

The remote port to which the converter is connected (for the TCP Client mode).

---

## Remote IP address

*Data channel options > Ethernet settings > Remote IP address*

*Default value: 0.0.0.0*

*Recommended references: Fig. 9; "Types of communication" (page 5)*

The IP address to which the converter is connected (for the TCP Client mode).

---

## UDP Datagram mode

*Data channel options > Ethernet settings > UDP Datagram mode*

*Default value: False (not checked)*

*Recommended references: Fig. 9; "Types of communication" (page 5)*

By checking this field you will activate the UDP mode.

---

## Incoming connection

*Data channel options > Ethernet settings > Incoming connection*

*Default value: Allowed*

*Recommended references: Fig. 9; "Types of communication" (page 5)*

This setting determines the converter's response to connection coming from Ethernet.

### Allowed:

The converter will always accept a connection request coming from Ethernet.

### Forbidden:

The converter will ignore all connection requests coming from Ethernet.

---

## Active connection start-up

*Data channel options > Ethernet settings > Active connection start-up*

*Default value: Forbidden*

*Recommended references: Fig. 9; "Types of communication" (page 5)*

This setting determines whether the converter will establish connection to Ethernet upon occurrence of different events. If established, the connection will be with the "Remote IP address" and the "Remote port."

### Disabled:

The converter will never establish connection automatically.

### Establish connection after any character on serial line:

The converter will establish the connection if any character comes from the serial line.

### Establish connection after CR character is received:

The converter will establish the connection if the CR character is received (carriage return; Enter; Decimal: 13; Hexadecimal: 10 ) from the serial line.

### Manual setting (C + address):

The converter will try to establish the connection if it receives from the serial line a command in the following format: C[IP address]/[port]

Example of a command received from the RS232 serial line to establish connection with IP 192.168.1.105, port 4567: C192.168.1.105/4567

If the subnet mask restricts the range of the network's IP addresses, for example to 8 bits (the "C type" mask – 255.255.255.0), the command can have an abridged format as follows: C105/4567



### Autostart outbound connection:

The converter will establish the connection immediately upon activation.

### Modem mode:

This option activates modem emulation by the GNOME module. All communication is then controlled by AT commands from the serial line. The following item, "Module actions within the Modem mode", is directly related to this mode.

## **Function with MODEM MODE option**

---

*Data channel options > Ethernet settings > Function with MODEM MODE option*

*Default value: Echo off*

*Recommended references: Fig. 9; "Modem mode:" (page 17)*

(This item is only available if the "Modem mode" is activated as the "Active connection start-up" option. Cf. the heading above.)

This setting specifies the converter's actions within the modem emulation mode.

### Without echo:

No information is written locally (to the serial line).

### With echo:

The "echo" is sent locally (to the serial line) with the connection status info.

### Numeric modem result codes:

The modem response is expressed as one character.

## **Port password**

---

*Data channel options > Ethernet settings > Port password*

*Default value: no password (not checked)*

*Recommended references: Fig. 9*

Immediately upon receiving a connection request from Ethernet, password is required. If the wrong password is given, the converter will disconnect the line. The maximum length of the password is 15 characters. Enter the selected password in the text field below the checkbox.

## **Idle timer**

---

*Data channel options > Ethernet settings > Idle timer*

*Default value: 0:0 (off)*

*Recommended references: Fig. 9*

If Ethernet connection has been established and no communication occurs in either direction for a preset time interval, the connection is cancelled. Minutes and seconds are entered separately. If the time is entered as 0:0, this function is switched off.

## **Line speed**

---

*Data channel options > Serial line settings > Serial line speed*

*Default value: 9,600 Bd*

*Options [Bd]: 300; 600; 1,200; 2,400; 4,800; 9,600; 19,200; 38,400; 57,600; 115,200; and 230,400*

*Recommended references: Fig. 9*

This option enables the user to set the communication speed of the serial line in Bauds.

---

## Character size

*Data channel options > Serial line settings > Character size*

*Default value: 8 bits*

*Options [bits]: 8, 7*

*Recommended references: Fig. 9*

Setting of the number of data bits on the serial line.

---

## Parity

*Data channel options > Serial line settings > Parity*

*Default value: none*

*Options: none, even, odd*

*Recommended references: Fig. 9*

Setting of the parity for data on the serial line.

---

## Stop bit

*Data channel options > Serial line settings > Stop bit*

*Default value: 1*

*Options: 1, 2*

*Recommended references: Fig. 9*

Setting of the number of the stop bits for data on the serial line.

---

## Flow control

*Data channel options > Serial line settings > Flow control*

*Default value: none*

*Options: none, XON/XOFF, RTS/CTS*

*Recommended references: Fig. 9*

Setting for the data flow control on the serial line.

### None:

The data flow is not controlled.

### XON/XOFF:

The data flow is controlled with the aid of special characters sent within the data – XOFF (transmission off) and XON (transmission on).

### RTS/CTS:

Hardware control with the aid of the RTS and CTS signals.

---

## Response

*Data channel options > Serial line settings > Response*

*Default value: No answer*

*Options: No answer, Character response*

*Recommended references: Fig. 9*

If "Character response" is selected, the converter sends to the serial line a character depending on the Ethernet connection status:

C ..... connected

D ..... disconnected

N ..... the server is unavailable

## Packing algorithm

---

*Data channel options > Serial line packeting > Packeting*

*Default value: Disable*

*Options: Disable, Enable*

*Recommended references: Fig. 9*

Control of packet creation of data coming from the serial line. The "Enable" setting will make available two more options for specification of packeting.

## Idle time

---

*Data channel options > Serial line packeting > Idle time*

*Default value: 12 ms*

*Options: 12 ms; 52 ms; 250 ms; 5,000 ms*

*Recommended references: Fig. 9*

(This option is only available if "Packeting" is set to "Enable".)

This setting determines the idle time interval (of no data from RS232) after which the received data is packed and sent to Ethernet.

## Trailing characters

---

*Data channel options > Serial line packeting > Trailing characters*

*Default value: none*

*Options: none, one, two*

*Recommended references: Fig. 9*

(This option is only available if "Packeting" is set to "Enable".)

This option determines the number of characters that are deemed a signal for packet preparation to be sent. As soon as the character(s) is/are received, the packet is prepared and subsequently sent as soon as another character is received (any). (This option can be used for recognising characters, e.g., preceding the checksum. The character that is always received before a checksum is set here. As soon as such a character is received, the converter will wait for another byte, which is then incorporated into the packet and the packet is sent.)

## Characters 01, 02

---

*Data channel options > Serial line packeting > Characters 01, 02*

*Default value: none*

*Recommended references: Fig. 9*

(This option is only available if "Packeting" is set to "Enable".)

The last but one characters in a packet are saved here (cf. the explanation of the preceding option).

## With active connection

---

*Data channel options > Erasing cache memory > Input > With active connection*

*Data channel options > Erasing cache memory > Output > With active connection*

*Default value: Disable*

*Options: Disable, Enable*

*Recommended references: Fig. 9*

This option can be set separately for the input (from RS232 to Ethernet) and output (from Ethernet to RS232) cache memories.

As soon as the converter establishes connection with Ethernet, the cache is deleted (input and/or output, according to the settings).

As soon as the converter receives connection established from Ethernet, the cache is deleted (input and/or output, according to the settings).

---

**With passive connection**

*Data channel options > Erasing cache memory > Input > With passive connection*

*Data channel options > Erasing cache memory > Output > With passive connection*

*Default value: Disable*

*Options: Disable, Enable*

*Recommended references: Fig. 9*

This option can be set separately for the input (from RS232 to Ethernet) and output (from Ethernet to RS232) cache memories.

As soon as the converter establishes connection with Ethernet, the cache is deleted (input and/or output, according to the settings).

As soon as the converter receives connection established from Ethernet, the cache is deleted (input and/or output, according to the settings).

---

**When disconnected**

*Data channel options > Deleting cache memory > Input > When disconnected*

*Data channel options > Deleting cache memory > Output > When disconnected*

*Default value: Disable*

*Options: Disable, Enable*

*Recommended references: Fig. 9*

This option can be set separately for the input (from RS232 to Ethernet) and output (from Ethernet to RS232) cache memories.

The cache is deleted (input and/or output, according to the settings) when the connection is broken.

## Network settings

When you click on the "Network settings" after connecting the converter, the setting window (Fig. 10) is displayed.

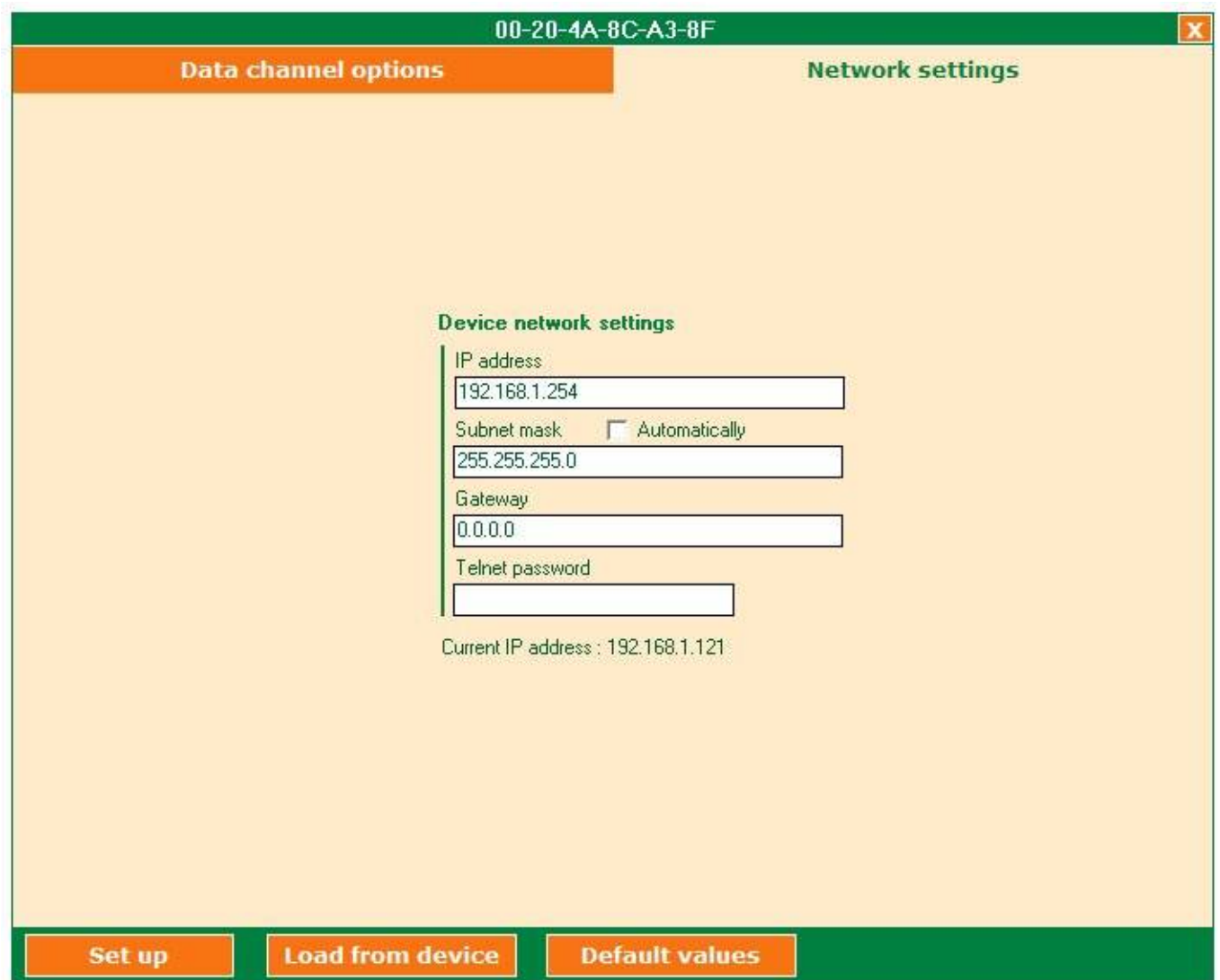


Fig. 10 – Network settings

### IP address

*Network settings > Device network settings > IP address*

*Default value: 192.168.1.254*

*Recommended references: Fig. 10*

Setting of the IP address for the GNOME module. It uniquely identifies the module within the respective network.

### Subnet mask

*Network settings > Device network settings > Subnet mask*

*Default value: 255.255.255.0 (C type mask)*

*Recommended references: Fig. 10*

It sets the subnet mask (a range of IP addresses used within the network segment) of the GNOME module. Letter codes are sometimes used for masks. (A stands for 255.0.0.0; B for 255.255.0.0; and C represents 255.255.255.0)

If the "Automatically" field is checked, the subnet mask is set as 0.0.0.0.

**Gateway**

*Network settings > Device network settings > Gateway*

*Default value: 0.0.0.0*

*Recommended references: Fig. 10*

The default gateway stands for the IP address of the computer through which the GNOME module is connected to the higher-level networks (possibly the Internet as well).

**Telnet password**

*Network settings > Device network settings > Telnet password*

*Default value: none*

*Recommended references: Fig. 10*

The password for connection via Telnet or a web interface. Maximum length is four characters (letters and/or numerals).

**Set up**

---

When you push this button at the bottom of the window, the changed settings are saved.

**Read from device**

---

When you click here, the actual settings are read from the converter. (The same reading of actual settings is carried out when the converter is connected.)

**Default values**

---

This option will return all settings to their initial values as set by the manufacturer.



# Papouch s.r.o.

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