



SPY Zettler a SPY Schrack

Interface to connect
fire alarm control panels to C4 system

(Modification of GNOME232 converter firmware)



SPY Zettler a SPY Schrack

Datasheet

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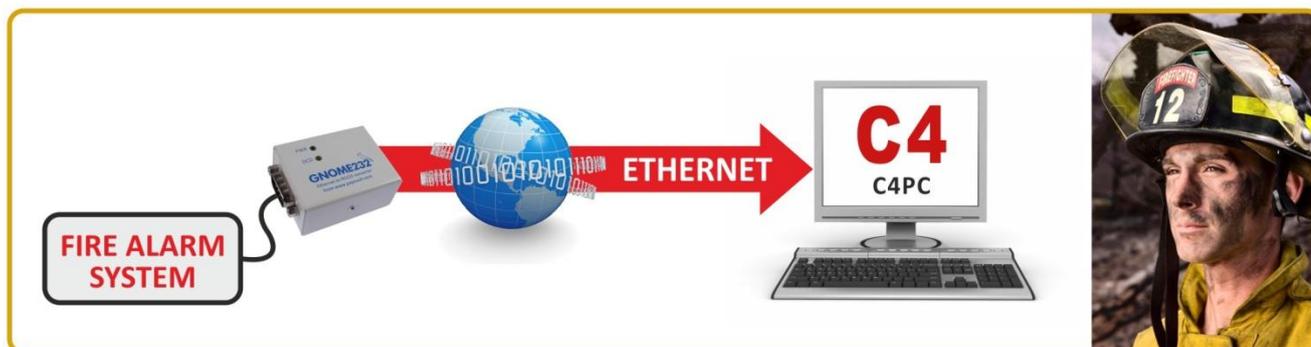
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DESCRIPTION

SPY Zettler a SPY Schrack is an interface between the Zettler or Schrack control panel, respectively, and a PC with the C4 (C4PC) system installed in it. The modules are connected to the control panel via the RS232 port, and to the C4PC system via TCP (Ethernet).

SPY Zettler a SPY Schrack thus enable to connect the fire alarm panel to a PC running the C4 system over a computer network.



Configuration is made via the Ethernet using the Telnet Protocol which is described below. The hardware of SPY Zettler a SPY Schrack comprises the module of the GNOME232 converter.

Warning: *If the Ethernet connection fails, SPY Zettler confirms any sent data packets as received. Thus the control panel is not informed of any failure of the connection with the master system. This should be taken into account in the design of the system. (This feature can be removed or changed upon your request. Do not hesitate to contact us.)*

CONNECTIONS

The SPY Zettler a SPY Schrack module features 3 connectors.



Fig. 1 – RS232 connector



Fig. 2 – Ethernet and power supply connector



Fig. 3

The **Ethernet** interface is connected to the HUB or Switch via the RJ45 connector by regular (non-crossover) cable. The Ethernet interface of GNOME232 is connected directly to a PC via crossover cable (so called “patch cable”).

Power supply is connected via a coaxial 3.8 × 1.3 mm connector. The positive pole (+) is inside.

RS232 is connected via CAN 9 – usually the M version (male plug; see Fig. 1). It is also possible to order the F version (female socket). (For RS232 connection, see the previous page.)

METHODS OF SETTING THE PARAMETERS

- 1) Ethernet configurator (via Ethernet)
- 2) Telnet protocol (via Ethernet)

ETHERNET CONFIGURATOR

Ethernet Configurator is used to set basic network parameters of the device. The software is available on the supplied CD and can also be downloaded from www.papouch.com.

(Before running the software, connect the device to you computer network. Connect it either to a hub, switch, and router or directly to a PC using a crossover cable.)

The program is available in Czech and English languages and contains brief instructions helping the user to set the required IP address.

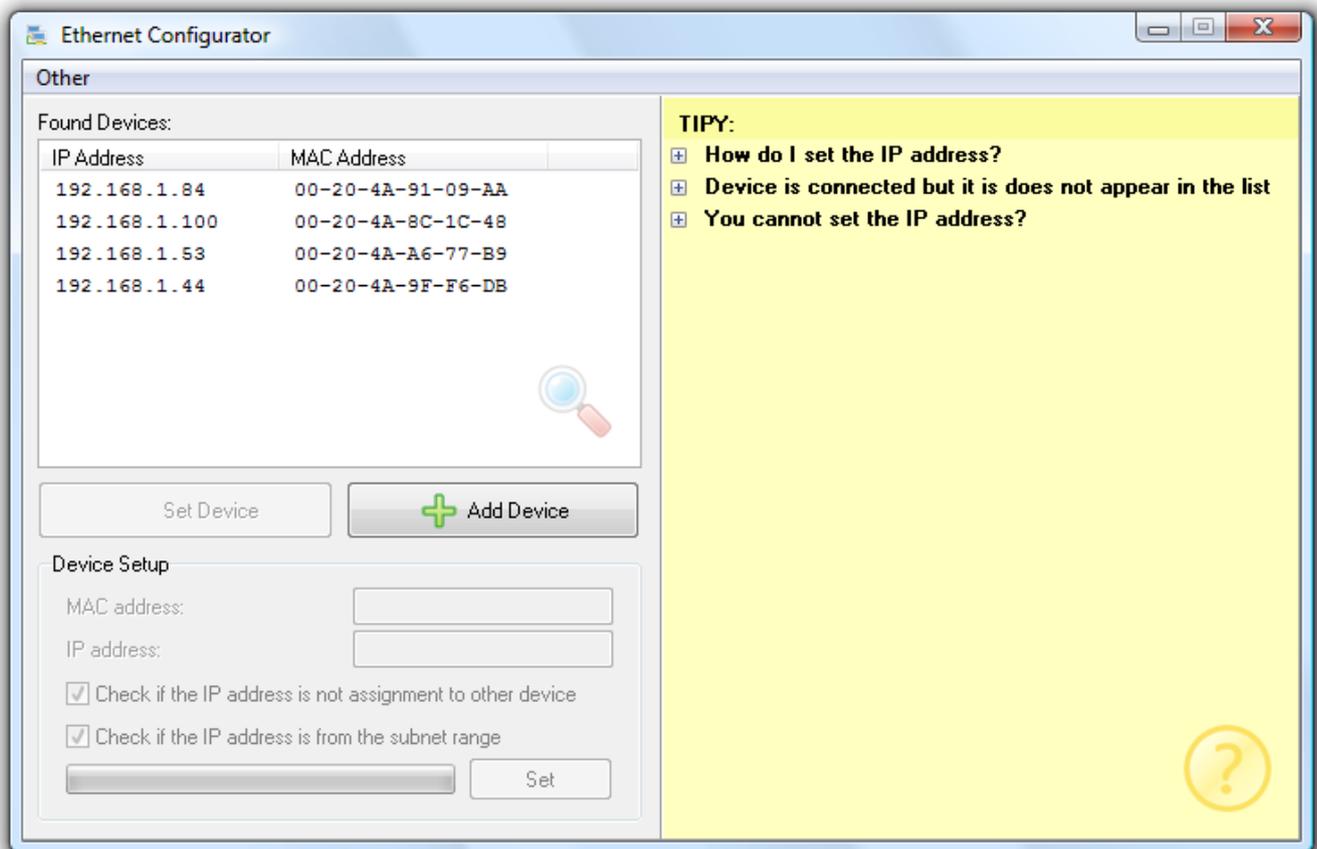


Fig. 4 – Ethernet Configurator

CONFIGURATION VIA TELNET

Connection

Telnet: IP address is known

(The factory default IP address is 192.168.1.254.)

- 1) In the Windows OS select Start/Run, enter `telnet` in the provided line and click Enter.
- 2) Connect to the IP address of the module. (Type in `open [IP address in dotted format] 9999` and click Enter)
- 3) If the entered IP address is valid, the converter displays the following introductory text:

```
**** SPY_      _Modul ****
```

```
Manufacturer: Papouch s.r.o.
```

```
WEB: www.papouch.com
```

```
TEL: +420 267 314 267
```

```
Firmware version: 0.2
```

```
MAC address 00204AC4B0CC
```

```
Software version V0.0.0.0 (100809) CPK6101_XPTEX
```

```
Press Enter for Setup Mode
```

Now it is necessary to press Enter within 3 seconds, otherwise the configuration will be closed.

- 4) The converter will display a summary of its settings.
- 5) The summary ends with a paragraph titled "Change setup:" which lists the groups of parameters that can be configured. The description of these items starts on page 8.

Telnet: IP address is not known

(The converter can also be reset to its factory default settings. By doing this you restore the default IP address of 192.168.1.254, but also rewrite other parameters.)

- 1) Open the window of the cmd command. (In the Windows OS select Start/Run, type `cmd` in the provided line and click Enter.)
- 2) Make the following entries into the ARP table:
 - a. Enter `arp -d` and confirm by Enter. This will delete the current ARP table.
 - b. Use the following command to assign an IP address to the module MAC address:

```
arp -s [ip_address_in_dotted_format] [XPort_MAC_address]
```

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

- 3) Now open telnet. (Type in `telnet` and click Enter.)
- 4) Enter `open [IP_address_assigned_to_MAC_address] 1` and confirm.

- 5) After a while, the terminal will display an error message saying that connection failed. However, this step is necessary for the module to enter the IP address into its ARP table.
- 6) Connect to the IP address of the module. (Type in open [IP address in dotted format] 9999 and click Enter)
- 7) So far you have only entered the configuration mode of the module. The IP address has not yet been set. It must be set in the menu "Server Configuration > IP Address". If you close the configuration mode without saving the settings and IP address configuration, the whole procedure must be repeated!
- 8) If the entered IP address is valid, the converter displays the following introductory text:

```
**** SPY_ _Modul ****
```

```
Manufacturer: Papouch s.r.o.
```

```
WEB: www.papouch.com
```

```
TEL: +420 267 314 267
```

```
Firmware version: 0.2
```

```
MAC address 00204AC4B0CC
```

```
Software version V0.0.0.0 (100809) CPK6101_XPTEX
```

```
Press Enter for Setup Mode
```

Now it is necessary to press Enter within 3 seconds, otherwise the configuration will be closed.

- 9) The converter will display a summary of its settings.
- 10) The summary ends with a paragraph titled "Change setup:" which lists the groups of parameters that can be configured. The description of these items starts on page 8.

Main menu

Menu items can be selected using the numbers written in front of them. Choose the desired number and press enter.

The menu structure is as follows:

Change Setup:

0 Server configuration

1 Channel 1 configuration

7 factory defaults

8 exit without save

9 save and exit

Your choice ? 0

Server configuration

Basic Ethernet settings.

This section contains the following parameters:

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

(IP Address)

IP address of the module. The digits of the IP address must be entered one by one and separated by Enter.

Default value: 192.168.1.254

Set Gateway IP Address

(set the IP address of the gateway)

Gateway IP addr

(IP address of the gateway)

This address does not have to be entered if the converter operates exclusively in the TCP Server mode.

For "Set Gateway IP Address" enter "Y" to change the Gateway IP address. The system then prompts you to change the Gateway IP address. The digits of the IP address must be entered one by one and separated by Enter.

Netmask

(network mask)

Here you specify how many bits of the IP address represent the network part.

The Netmask is set as a number of bits determining the range of available local network IP addresses. For example, if the value 2 is entered, the Netmask has the following structure 255.255.255.252. The entered value specifies the number of bits from the right. The maximum is 32.

Default value: 8

Example:

The mask 255.255.255.0 (binary representation 11111111 11111111 11111111 00000000) corresponds to the number 8.

The mask 255.255.255.252 (binary representation 11111111 11111111 11111111 11111100) corresponds to the number 2.

Change telnet config password

(Set the password for Telnet)

Enter new Password

(Enter the password for Telnet)

This parameter is used to set a new password which is required prior to any configuration via Telnet or WEB interface. For configuration via serial line no password is required.

For item "Change telnet config password" enter "Y" to change the password. The system then prompts you to change the password..

Channel 1 configuration

Setting of serial line and data port parameters:

***** Channel 1 *****

Baudrate : (9600)

RS_mode : (8N1)

Source Port : (10001)

Baudrate

(Serial line speed)

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

Available options: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400.

Default value: 9600

RS_mode

(Serial line speed)

This option enables the user to set the communication parameters of the serial line. Available combinations:

„8N1“ – 8 bits, no parity, 1 stop bit

„8O1“ – 8 bits, odd parity, 1 stop bit

„8E1“ – 8 bits, even parity, 1 stop bit

Default value: 8N1

Source Port

(Data port)

The number of the data port where connection from the C4 system is expected.

Default value: 10001

Factory Defaults

By pressing number 7 the device restores the default settings.

Exit without save

To close the configuration mode without saving the changed parameters.

Save and exit

This option saves the changes. If any parameter has been changed, the converter is restarted. Then it is necessary to reconnect to the converter using the newly set parameters – e.g. to a different IP address and a port.

INDICATOR LIGHTS

PWR indicator (green)

Indication of power supply voltage.

DCD indicator (yellow)

It is on when connection is established on the data port.

Link indicator

(Left indicator on the Ethernet connector)

Off not connected

Yellow..... connected – 10Mbps

Green connected – 100Mbps

Activity indicator

(Right indicator on Ethernet connector)

Off no communication

Yellow..... Half-Duplex communication

Green Full-Duplex communication

TECHNICAL PARAMETERS

Ethernet:

Ethernet connection.....RJ45 Ethernet 10/100BASE-T

RS232 line:

ConnectorCAN 9 M (CAN 9 F available upon request)

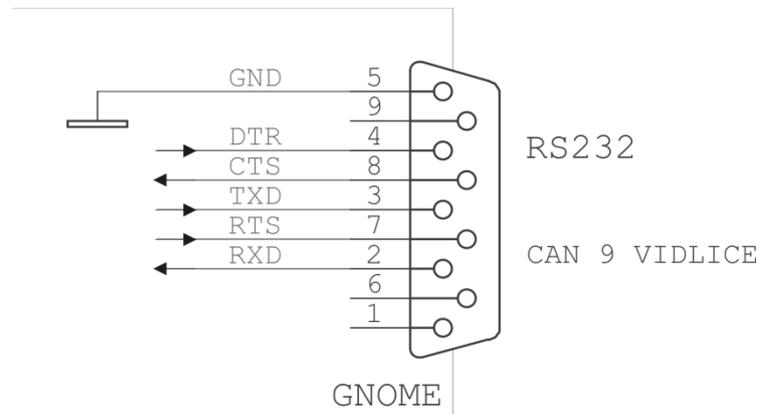


Fig. 5 – connection of CAN 9 M (plug)

Used signalsRXD, TXD, RTS, CTS, DTR, GND
(voltage levels according to RS232)

Power supply:

Power supply voltage – standard design5 to 30 V (no galvanic isolation)

Power supply voltage – design ISOL05¹4.5 to 9 V (galvanically isolated power supply)

Power supply voltage – design ISOL12¹9 to 18 V (galvanically isolated power supply)

Power supply voltage – design ISOL24¹18 to 36 V (galvanically isolated power supply)

Power supply voltage – design ISOL48¹36 to 72 V (galvanically isolated power supply)

Current consumption – at 12 Vtypically 80 mA

Current consumption – at 5 Vtypically 190 mA

Other parameters:

Weight85 g

Degree of protectionIP30

Operating temperature.....–25 to +75 °C

Dimensions.....57 mm x 25 mm x 42 mm

Do not hesitate to contact us should you have any other requirements concerning the design and functions of SPY Zettler a SPY Schrack.

¹ The ISOL05, ISOL12, ISOL24 and ISOL48 versions are marked with a special label showing the relevant range. In these versions, power supply is galvanically isolated from other parts of the device.

Papouch s.r.o.

Data transmission in industry, line and protocol converters, RS232/485/422/USB/Ethernet/GPRS/WiFi, measurement modules, intelligent temperature sensors, I/O modules, customized electronic applications.

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