

Expert Power Control NET 4x 8212 / 8213



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1 Security Advise

The device must be installed only by qualified personnel according to the following installation and operating instructions. The manufacturer does not accept responsibility in case of improper use of the device and particularly any use of equipment that may cause personal injury or material damage.

The device contains no user-maintenable parts. All maintenance has to be performed by factorytrained service personnel.

Check if the power cord, the plug and the socket are in proper condition.

The device can be connected only to 230V AC (50 or 60 Hz) sockets.

Always connect the device to properly grounded power sockets.

The device is intended for indoor use only. Do NOT install them in an area where excessive moisture or heat is present.

Because of safety and approval issues it is not allowed to modify the device without our permission.

Please note the safety advises and manuals of connected devices, too.

The device is NOT a toy. It has to be used or stored out of range of children.

Packaging material is NOT a toy. Plastics has to be stored out of range of children. Please recycle the packaging materials.

In case of further questions, about installation, operation or usage of the device, which are not clear after reading the manual, please do not hesitate to ask our support team.

2 Description

The Remote Power Switch **Expert Power Control NET 8x 8210 / 8211** allows the switching of electrical devices via a TCP/IP network and a serial interface.

For installation just connect the power and network cables to **Expert Power Control NET 8x 8210 / 8211**.

After the device has received an IP address every client in the same network is able to switch the four Power Ports (max. 10 A) via webinterface. **Expert Power Control NET 8x 8210 / 8211** offers also features like SNMP and Syslog. Additional **Expert Power Control NET 8x 8210 / 8211** can be controlled via a serial connection.

A temperature sensor and a hybrid sensor (temperature and humidity) can be connected to **Expert Power Control NET 8x 8210 / 8211**.

A watchdog function for each power port is implemented.

The display on the front is able to show the IP address, the recent total load, the peak current (timeframe adjustable) and the measurements of the sensors.

Furthermore the access to the device can be restricted by IP access control lists and a HTTP password.

3 Hardware

3.1 Content of delivery

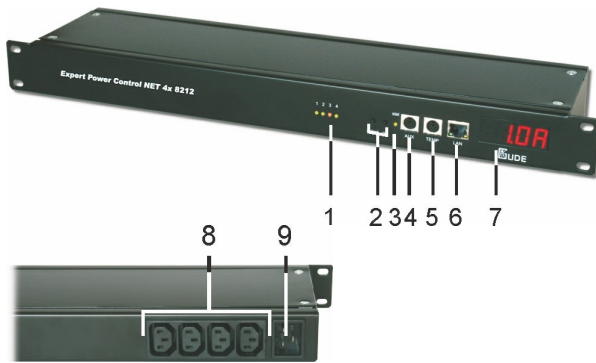
Included in delivery are:

- **Expert Power Control NET 8x 8210 / 8211**
- Power supply cable (IEC)
- CD-ROM including Software and Manual
- Short manual

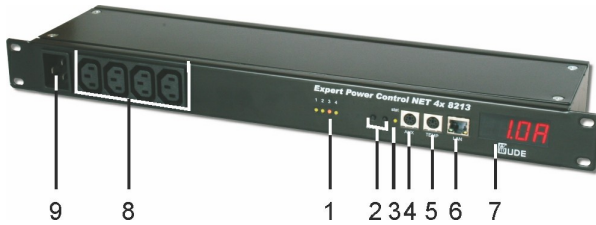


3.2 Connections

Connections **Expert Power Control NET 4x 8212**



Connections **Expert Power Control NET 4x 8213**



- 1) Power Port LEDs
- 2) Buttons "select" and "ok"
- 3) Status LED
- 4) Aux connector for serial interface (RS232-PS2 cable) or Sensor
- 5) TEMP connector for Sensor
- 6) Ethernet connector (RJ45)
- 7) Display
- 8) 8 Power Ports (IEC C13, max. 10A)
- 9) Power supply (IEC C20, max. 16A)

3.3 Installation

1.) Connect the power supply cable to the power socket at the rear side (**Expert Power Control NET 4x 8212**) or front side (**Expert Power Control NET 4x 8213**) of **Expert Power Control NET 8x 8210 / 8211** and a socket. **Expert Power Control NET 8x 8210 / 8211** now is booting and shortly after ready for usage.

2.) Plug the Ethernet cable into the connector on the front side of **Expert Power Control NET 8x 8210 / 8211** and connect it to your Ethernet.

3.) Connect the clients to the Power Ports at the rear side (**Expert Power Control NET 4x 8212**) or front side (**Expert Power Control NET 4x 8213**) of the device.

4 Configuration

4.1 DHCP

After switch-on **Expert Power Control NET 8x 8210 / 8211** looks for a DHCP server and requests an available IP address .

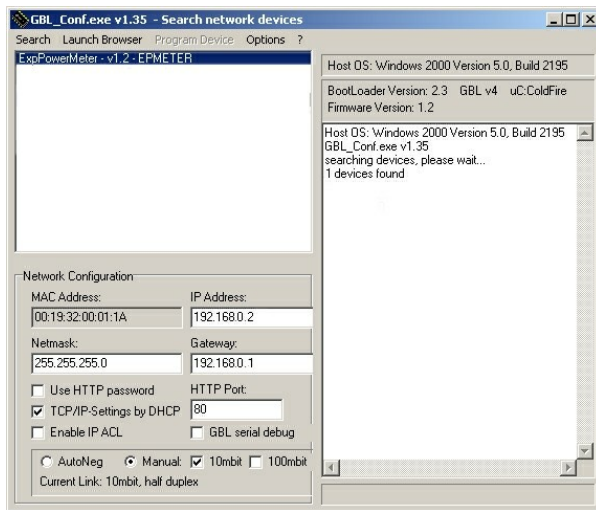
Please check the IP address allocated to **Expert Power Control NET 8x 8210 / 8211** in the DHCP server settings to make sure that the same address is used at every reboot.

4.2 Network settings with GBL_Conf

For changing the network properties manually, the program *GBL_Conf.exe* is required. This tool is available for free on our website www.gude.info.

Furthermore *GBL_Conf.exe* enables you to install firmware updates and to reset **Expert Power Control NET 8x 8210 / 8211** to its factory settings.

Activate bootloader mode of **Expert Power Control NET 8x 8210 / 8211** and run *GBL_Conf.exe*. The program will look automatically for connected devices and will display their network configuration.



If the displayed IP address accords with the factory settings (192.168.0.2), there is either no DHCP server available in the network or no free IP address could be allocated.

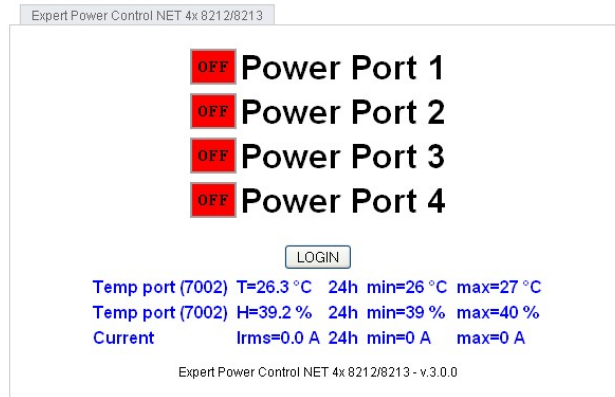
Enter a free IP address and the according netmask in the entry mask, then save these changes by clicking on *Program Device* → *SaveConfig*.

Restart the firmware of **Expert Power Control NET 8x 8210 / 8211**, so that the changes will take effect. Now click on *Search* in order to have the new network configuration displayed.

4.3 Configuration via webinterface

Go to the website of **Expert Power Control NET 8x 8210 / 8211**. Enter the IP address of **Expert Power Control NET 8x 8210 / 8211** into the address line of your internet browser:

http://IP address of Expert Power Control NET 8x 8210 / 8211/
and press LOGIN.



To enter the configuration menu, click on „Configuration“ on the upper left side of the screen.

4.3.1 Configuration - Power Ports



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4.3.1.1 Label

A name with a maximum of 15 characters can be entered here for each Power Port.

4.3.1.2 After power-up switch

The Power Port's switching state after a power-on of the device can be defined here (*on, off, remember last state*).

4.3.1.3 If switching on after power-up, wait ...

A switching delay of a Power Port can be defined here that is applied after switch on of the device. The delay can last up to 8191 seconds.

4.3.1.4 After turning off, wait ...

While this function is enabled, the Power Port will reactive after the stated time, when it got switched off.

4.3.1.5 Watchdog

While using the watchdog, electrical devices can be observed. The watchdog sends ICMP-pings or TCP-pings to the device. If these pings were not answered, during a defined delay (time or pings), the power port will reset. The watchdog function allows to restart e.g. crashed servers or NAS systems.

You can check the watchdog function and other information inside of the switching menu. There are different colors:

- Green text: Watchdog is active and receives ping replies
- Orange text: Watchdog is activating at the moment, waiting for first ping reply
- Red text: Watchdog is active and does not receive ping replies any longer

When watchdog is activating it waits of a first ping reply. During this time, the information is written as an orange text. After the receive of the first ping reply, it switches to active, written in green letters.

When a watchdog reset a power port, the watchdog again waits for a first ping reply, as stated above.

4.3.1.5.1 Enable Watchdog

Here you can activate the watchdog for this power port.

4.3.1.5.2 Watchdog type

Here you can switch between ICMP ping or TCP ping.

4.3.1.5.3 Host IP

Here you can enter the IP address this watchdog should observe.

4.3.1.5.4 TCP Port

If TCP pings are used, here you can enter the TCP port. A TCP port is not needed, when ICMP pings are chosen.

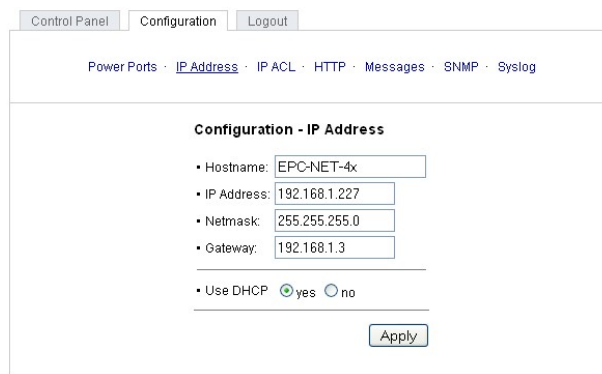
4.3.1.5.5 Ping interval

Here you can enter the time between two pings.

4.3.1.5.6 Ping retry

Here you can enter how often the ping should be repeated, before a power port reset will be done.

4.3.2 Configuration - IP address



Expert Power Control NET 4x 8212/8213 - v.3.0.0

4.3.2.1 Hostname

Enter the host name of **Expert Power Control NET 8x 8210 / 8211**. **Expert Power Control NET 8x 8210 / 8211** uses this name to connect with DHCP server.

Special signs may destabilize your network.

All changes need a restart of the firmware to get valid.

4.3.2.2 IP Address

Here you can change the IP address of **Expert Power Control NET 8x 8210 / 8211**.

All changes need a restart of the firmware to get valid.

4.3.2.3 Netmask

Here you can change the netmask of **Expert Power Control NET 8x 8210 / 8211**.

All changes need a restart of the firmware to get valid.

4.3.2.4 Gateway

Here you can change the standard gateway of **Expert Power Control NET 8x 8210 / 8211**.

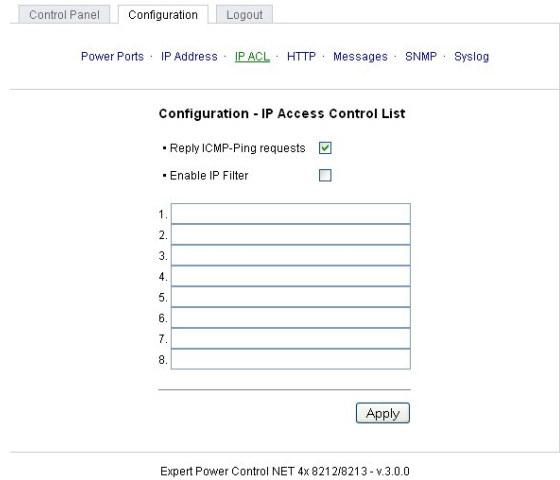
All changes need a restart of the firmware to get valid.

4.3.2.5 Use DHCP

Here you can set, if **Expert Power Control NET 8x 8210 / 8211** shall get its TCP/IP settings directly from your DHCP server. If DHCP is activated, **Expert Power Control NET 8x 8210 / 8211** proves if a DHCP server is active inside of your LAN. Then **Expert Power Control NET 8x 8210 / 8211** requests TCP/IP settings from this server. If there is no DHCP server inside of your network, we recommend to deactivate this function.

All changes need a restart of the firmware to get valid.

4.3.3 Configuration - IP ACL



IP Access Control List (IP ACL) acts as an IP filter for your **Expert Power Control NET 8x 8210 / 8211**. Whether it is active, only hosts and subnets listed in this IP ACL can contact **Expert Power Control NET 8x 8210 / 8211**. For example, „<http://192.168.0.1>“ or „<http://192.168.0.1/24>“.

If you locked yourself out by mistake, please activate the bootloader mode of **Expert Power Control NET 8x 8210 / 8211**, start *Gbl_Conf.exe* and deactivate IP ACL.

You can find more information about configuration of IP ACL or have a look at <http://www.gude.info/wiki>.

4.3.3.1 Reply ICMP-Ping requests

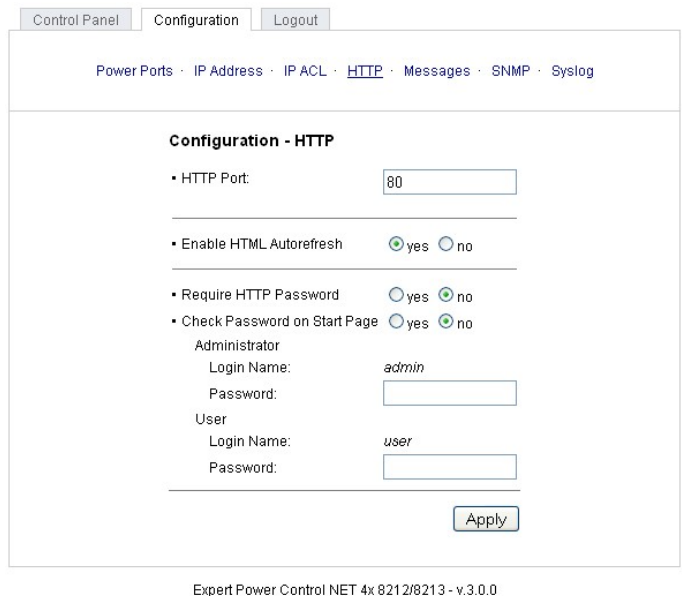
Here you can set, if **Expert Power Control NET 8x 8210 / 8211** shell react on pings.

4.3.3.2 Enable IP Filter

Here you can activate the IP Access Control List (IP ACL) of **Expert Power Control NET 8x 8210 / 8211**.

If IP ACL is active, DHCP and SNMP only work, if all necessary servers and clients are registered in this list.

4.3.4 Configuration - HTTP



4.3.4.1 HTTP Port

Here you can enter the HTTP port number, if necessary. Possible numbers are 1 ... 65534 (standard: 80). To get access to **Expert Power Control NET 8x 8210 / 8211**, you have to enter the port number behind the IP address of **Expert Power Control NET 8x 8210 / 8211**, e.g.: *http://192.168.0.2:1720*

All changes need a restart of the firmware to get valid.

4.3.4.2 Require HTTP Password

Password protected access can be activated here. In this case, a user and an admin password have to be defined. Passwords have a maximum lengths of 15 characters. Administrators are authorized to switch all ports and to modify the settings of **Expert Power Control NET 8x 8210 / 8211** and of all ports. The username of the admin is "admin".

Users are authorized to switch all ports but are not allowed to modify the settings of neither **Expert Power Control NET 8x 8210 / 8211** nor the ports. The username of the user is "user".

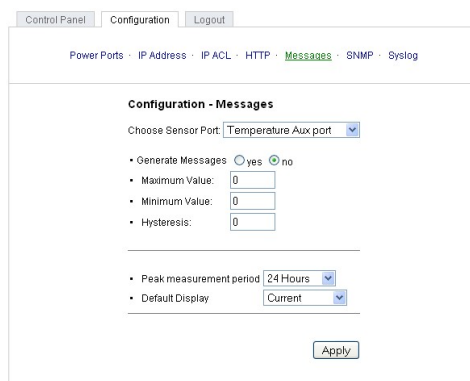
If you have forgotten your password, activate the bootloader mode of **Expert Power Control NET 8x 8210 / 8211**, start GBL-Conf.exe and deactivate the password request.

All changes need a restart of the firmware to get valid.

4.3.4.3 Check Password on start page

If activated, the user has to enter his password, before logging in to the webinterface.

4.3.5 Configuration - Messages



4.3.5.1 Generate Temperature Messages

Here you can configure if and at which Min-/Max-Temperature **Expert Power Control NET 8x 8210 / 8211** shell send temperature alerts via SNMP-Traps and Syslog.

4.3.5.2 Max Temperature

Here you can define the maximum temperature, if the sensor measures this temperature the device will generate an alert via SNMP and Syslog.

4.3.5.3 Min. Temperature

Here you can define the minimum temperature, if the sensor measures this temperature the device will generate an alert via SNMP and Syslog.

4.3.6 Configuration - SNMP

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4.3.6.1 SNMP

To get detailed status information of **Expert Power Control NET 8x 8210 / 8211** SNMP can be used. SNMP communicates via UDP (port 161) with **Expert Power Control NET 8x 8210 / 8211**: You can use SNMP to switch the power ports as well. Supported SNMP commands:

- SNMPGET: request status information
- SNMPGETNEXT: request the next status information
- SNMPSET: **Expert Power Control NET 8x 8210 / 8211** request change of status

You will need a Network Management System, e.g. HP-Open View, OpenNMS, Nagios etc., or the command line tools of NET-SNMP to request information of **Expert Power Control NET 8x 8210 / 8211** via SNMP.

4.3.6.1.1 SNMP-communities

SNMP authenticates requests by so called communities.

The public community has to be added to SNMP-read-requests and the private community to SNMP write requests. You can see the SNMP communities like read/write passwords. SNMP v1 and v2 transmit the communities without encryption. Therefore it is simple to spy out these communities. We recommend to use a DMZ or IP ACL.

4.3.6.1.2 MIB

All information, that can be requested or changed, the so called „Managed Objects“, are described in „Management Information Bases“ (MIBs).

There are three MIBs, which can be requested from **Expert Power Control NET 8x 8210 / 8211**:

„system“, „interface“ and „powerports“

„system“ and „interface“ are standardised MIBs (MIB-II).

„powerports“ (GUDEADS-EPC-MIB::gadsEPC) was created especially for **Expert Power Control NET 8x 8210 / 8211**.

At least, there are so called Object Identifiers (OID) subordinated to those three structures. An OID describes the location of an information inside a MIB.

4.3.6.1.3 SNMP-traps

SNMP-Traps are system messages, sent via SNMP-protocol to different clients. On following events, **Expert Power Control NET 8x 8210 / 8211** will dispatch a SNMP-Trap:

- Switching of the Power Ports
- Min/Max-Alerts from the sensors

You can find more information about configuration of SNMP at <http://www.gude.info/wiki>.

4.3.6.2 Enable SNMP-get

Here you can activate SNMP-get protocol of **Expert Power Control NET 8x 8210 / 8211**.

Use SNMP only if your network is fitted for.

4.3.6.3 Community public

Here you can enter the SNMP public community.

Use SNMP only if your network is fitted for.

4.3.6.4 Enable SNMP-set

Here you can activate SNMP-set protocol of **Expert Power Control NET 8x 8210 / 8211**.

Use SNMP only if your network is fitted for.

4.3.6.5 Community private

Here you can enter the SNMP private community.

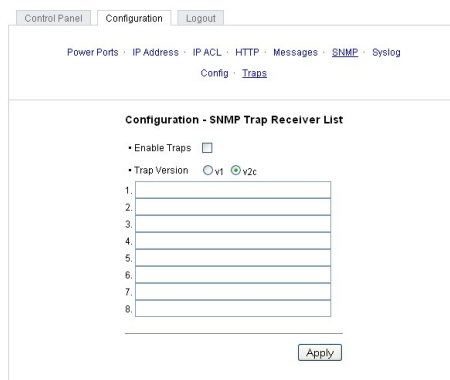
Use SNMP only if your network is fitted for.

4.3.6.6 Download SNMP MIB

Here you can download the MIBs of **Expert Power Control NET 8x 8210 / 8211**.

Use SNMP only if your network is fitted for.

4.3.7 Configuration - SNMP Trap Receiver List



4.3.7.1 Enable Traps

Here you can activate SNMP-traps. if enabled, **Expert Power Control NET 8x 8210 / 8211** will dispatch SNMP-traps to all receivers listed. Receivers have to be listed as follows: IP address (and, if necessary the HTTP port), e.g.: *192.168.0.2:8000*

Use SNMP only if your network is fitted for.

4.3.7.2 Trap Version

Here you can choose between SNMP-traps standard v1 and v2c.

Use SNMP only if your network is fitted for.

More information about the SNMP functions of **Expert Power Control NET 8x 8210 / 8211**, you can find in chapter SNMP, on <http://www.gude.info/wiki> or ask our support team.

4.3.8 Configuration - Syslog

Control Panel Configuration Logout

Power Ports · IP Address · IP ACL · HTTP · Messages · SNMP · Syslog

Configuration - Syslog

• Enable Syslog yes no

Syslog Server IP:

Syslog Port:

Apply

Expert Power Control NET 4x 8212/8213 - v.3.0.0

Syslog messages are simple text messages transmitted to a syslog server using UDP.

Linux OS regularly have a syslog daemon installed, e.g. syslog-ng. For Windows there are some freeware tools available.

On following events, **Expert Power Control NET 8x 8210 / 8211** will send a syslog message:

- Booting up
- Activation/deactivation of syslog
- Switching of Power Ports

You can find more information about configuration of Syslog in chapter Configuration - Syslog or have a look at <http://www.gude.info/wiki>.

4.3.8.1 Enable Syslog

Here you can activate Syslog of **Expert Power Control NET 8x 8210 / 8211**.

4.3.8.2 Syslog Server IP

If syslog is active enter here the IP address of you Syslog server.

4.3.8.3 Syslog Port

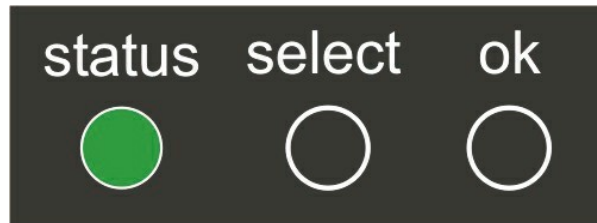
If syslog is active enter here the port number, that your Syslog server uses to receive syslog information.

More information about Syslog you can find in chapter Syslog, on <http://www.gude.info/wiki> or ask our support team.

5 Operation

5.1 Switching at the device

Expert Power Control NET 8x 8210 / 8211 disposes of two buttons: “**select**” and “**ok**”. By pushing “**select**”, the LED of Power Port 1 starts blinking which means that it is selected. By pushing the button again, the next Power Port is selected. If you want to change the switching state of the selected Power Port, push the “**ok**” button for two seconds.



You can check the status of the Power Ports by the color of the Power Port status LED (green=enabled/red=disabled).

5.2 Switching by Webinterface

Go to the website of **Expert Power Control NET 8x 8210 / 8211**. Enter the IP address of **Expert Power Control NET 8x 8210 / 8211** into the address line of your internet browser:

http://IP address of Expert Power Control NET 8x 8210 / 8211/ and press LOGIN

5.2.1 Switching

Here you are able to switch the ports directly.

You can check the status of the Power Ports by the color of the Power Port status LED (green=enabled/red=disabled).

5.2.2 Batchmode

Each Power Port of **Expert Power Control NET 8x 8210 / 8211** can be switched on or switched off for a selectable delay (1-30 sec. or 1-30 min.). After the chosen delay the selected port will be switched off or switched on again auto-matically.

Optionally the device can be accessed by using the perl script „*EPC_Control2.pl*” through the command line (e.g. for automatic or time-triggered switching).

For more information please refer to our website:
www.gude.info/wiki

5.3 Switching via serial interface

Alternatively to the Ethernet interface, the Power Ports of **Expert Power Control NET 8x 8210 / 8211** can be switched through its serial interface. It only requires a terminal program like HyperTerminal, a program provided under Windows for free (to be found under *Programs -> Accessories -> Communication*).

Connect your PC with **Expert Power Control NET 8x 8210 / 8211** by a 9-pole serial cable (RS232) and plug the device into a outlet. Now you can turn on **Expert Power Control NET 8x 8210 / 8211**. The boot process lasts a few seconds longer than by Ethernet.

You can access **Expert Power Control NET 8x 8210 / 8211** through the terminal program as soon as the status LED shines green. Choose the COM port that is connected to **Expert Power Control NET 8x 8210 / 8211** and enter the following values for the serial interface:

Bits per seconds	115200
Data bits	8
Parity	none
Stop bits	1
Flow control	none

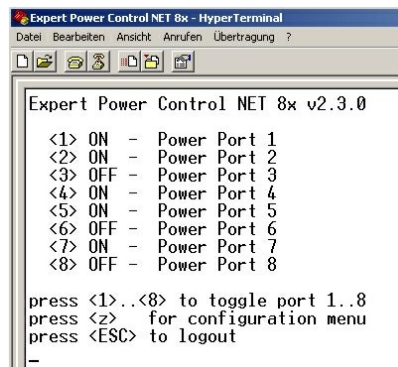
If you do not use *HyperTerminal*, please make sure that the terminal program supports VT100 commands.

After having it connected successfully, **Expert Power Control NET 8x 8210 / 8211** answers as shown in figure below. Press *Enter* for login.



```
Expert Power Control NET 8x v2.3.0
press <ENTER>-key to login
-
```

Now the Power Ports can be switched on and off per number keys. By pressing *c* you can check the network configuration and by pressing *Esc* you can log out.



```
Expert Power Control NET 8x v2.3.0

<1> ON - Power Port 1
<2> ON - Power Port 2
<3> OFF - Power Port 3
<4> ON - Power Port 4
<5> ON - Power Port 5
<6> OFF - Power Port 6
<7> ON - Power Port 7
<8> OFF - Power Port 8

press <1>..<8> to toggle port 1..8
press <z> for configuration menu
press <ESC> to logout
-
```

5.4 Sensor

Connect the temperature sensor with the TEMP and AUX connector at the front of the device. If it is connected exactly, the recent temperature is displayed in the login window, in the switching window and can be requested via SNMP. The temperature sensor can be ordered as additional supplies. More information can be found at www.gude.info or requested at mail@gude.info.



Temperature sensor 7001



Hybrid sensor 7002

Temperature sensor 7001	
Cable length	~ 2m
Connection	PS2
Measurement	-10°C bis +70°C bei $\pm 2^\circ\text{C}$ (maximal) und $\pm 1^\circ\text{C}$ (typisch)

Hybrid sensor 7002	
Cable length	~ 2m
Connection	PS2
Measurement	(-40 bis +80 Grad, +- 0,5Grad/ Feuchte 0-100% +-3%)

6 Features

6.1 Bootloader mode

To activate the bootloader mode of **Expert Power Control NET 8x 8210 / 8211** the select button must be pushed while restarting the device. In bootloader mode it is possible to disable the password protection, to update the firmware and to restore the default settings by running the program *GBL_Conf.exe*.

If the device runs already, press the buttons "select" and "ok" for three seconds. The bootloader mode of **Expert Power Control NET 8x 8210 / 8211** is indicated by "BOOT-LDR" appended to the device name in the program window of *GBL_Conf.exe*.

During bootloader mode an alteration of the relays is not possible.

To restart the firmware, without toggle the Power Ports, press the buttons *select* and *ok* for three seconds again.

6.2 Firmware update

In order to update the firmware the program *GBL_Conf.exe* and the latest firmware are needed.

Start the device in bootloader mode and run the program *GBL_Conf.exe*. On the left side of the program window all Gude devices that are in the network are listed. Select the device, that should be updated, click on Program DeviceFirmware Update and determine the location of the new firmware.

Please note: The up-to-date firmware and *GBL_Conf.exe* can be found at www.gude.info, free to download.

6.3 Technical information

Connections:	1 x Ethernet (RJ45) 2 x PS2 Connector 4 x Power Ports (IEC C13, max. 10A) 1 x Power supply inlet (IEC C20, max. 16A)
Network:	10/100 MBit/s 10baseT Ethernet
Protocols:	TCP/IP, HTTP, SNMP v1 und v2c, SNMP traps, Syslog
Switched Power (total):	16 A (~ 3600W)
Switched Power (per port):	10 A (~ 2000W)
Power supply:	IEC C20 (16A, 230V AC)
Operating temperature:	0°C-50°C
Dimensions:	19" / 1 rack unit
Total weight:	ca. 1,5 kg

6.4 Fabrique settings

In order to restore the default settings the device must be started in bootloader mode. Besides that the program *GBL_Conf.exe* is required.

Run *GBL_Conf.exe* and select the device whose settings should be restored. Then click on *Program Device -> Reset to Fab default*.


Please notice that all current settings will be deleted. The default settings will be loaded when the firmware of the device is restarted the next time.

7 Support

More information, current drivers and software can be found on <http://www.gude.info>.

In case of further questions, about installation or operation of **Expert Power Control NET 8x 8210 / 8211**, please have look at www.gude.info/wiki or do not hesitate to contact our support (mail@gude.info).

8 Declarations of conformity



ETS Product Service GmbH

CERTIFICATE OF CONFORMITY

EU LVD DIRECTIVE 2006/95/EC

This certifies that the following designated product

Expert Power Control
Model No.: NET 8x

.....
 (Product identification)

complies with the essential protection requirements of the LVD Directive 2006/95/EC on the approximation of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits. Assessment of compliance of the product with the requirements relating to the Low Voltage Directive (LVD) was based on the following standards:

EN 60950-1:2006

.....
 (Identification of regulations / standards)


This certificate is issued for

Gude Analog- und Digitalsysteme GmbH
Eintrachtstr. 113
50668 Koeln, Germany

.....
 (Name / Address)

The certification is valid only in accordance with the test report No. G0M20803-1696-L and when the product is manufactured in accordance with the tested sample.

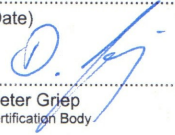
GS LVD E/e-MARK FCC GSM UMTS SAR RADIO CB EMC DECT WLAN 3G Bluetooth R&TTE



G0M20803-1696

This is the result of tests carried out on those samples of the product referred to above which were submitted for testing, in accordance with the specification for the respective standards.
 Eurofins ETS Product Service GmbH – Accredited Test House – Recognized Certification Body –

July 18, 2008
 (Date)



Dieter Griep
 Certification Body

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Konformitätserklärung / Declaration of Conformity



Die Firma / The manufacturer

Gude Analog- und Digitalsysteme GmbH

Anschrift/Address: Eintrachtstr. 113, 50668 Köln
Telefon/Phone: 0221 – 912 90 97 **Fax:** 0221 – 912 90 98 **Web:** www.gude.info **Mail:** mail@gude.info

erklärt hiermit, dass die Produkte / hereby declares that the following products

Produktkennzeichnung / Product name

Expert Power Control NET 1x Schuko, Expert Power Control NET 1x IEC, Expert Power Control NET 4x, Expert Power Control NET 8x, Expert Power Control NET 2x6, Expert Power Control NET 24x, Expert Power Control NET D4x, Expert Power Control NET D1M3S, Expert Power Control NET 4x DIN
 Schaltbare Ein- bzw. Mehrfach-Steckdose für TCP/IP Netzwerke / Switchable single and multiple socket for TCP/IP networks

mit den Bestimmungen der nachstehenden EU-Richtlinien übereinstimmen /
 are in accordance with the following european directives

Referenz-Nummer / Reference no.	Titel / Title
89/336/EWG / 89/336/EEC	Elektromagnetische Verträglichkeit / Electromagnetic Compatibility
2006/95/EWG / 2006/95/EEC	Niederspannungsrichtlinie / Low Voltage Electrical Equipment
93/68/EWG / 93/68/EEC	CE Kennzeichnung / CE marking

und dass die nachstehenden Europäischen Normen zur Anwendung gelangt sind. /
 and comply with the following european standards.

Norm / Standard	Titel / Title
EN 55022:2006 + A1, A2	Einrichtungen der Informationstechnik: Funkstöreigenschaften – Grenzwerte und Messverfahren
EN 55022:2006 + A1, A2	Information technology equipment: Radio disturbance characteristics - Limits and methods of measurement
EN 55024:1998 + A1, A2	Einrichtungen der Informationstechnik: Störfestigkeitseigenschaften – Grenzwerte und Prüfverfahren
EN 55024:1998 + A1, A2	Information technology equipment: Immunity characteristics - Limits and methods of measurement
EN 61000-3-2:2006	Elektromagnetische Verträglichkeit Teil 3-2: Grenzwerte - Grenzwerte für Oberschwingungsströme
EN 61000-3-2:2006	Electromagnetic compatibility Part 3-2 : Limits – Limits for harmonic current emissions
EN 60950-1:2006	Sicherheit von Einrichtungen der Informationstechnik
EN 60950-1:2006	Safety for Industrial Control Equipment

Köln, 09.02.2010

Dr. Michael Gude, Geschäftsführer / CEO



Der Hersteller/
The manufacturer



Gude Analog- und Digitalssysteme GmbH
Eintrachtstrasse 113
50668 Köln

erklärt hiermit, dass für folgende Produkte/
hereby declares that the following products:

Expert mouseClock (alle Varianten/all versions)
EMC Professional NET (alle Varianten/all versions)
Expert GPS Clock (alle Varianten/all versions)
Expert Power Control NET (alle Varianten/all versions)
Expert Power Meter (alle Varianten/all versions)
Expert OptoBridge
USB-RS232 OptoBridge
Expert ISDN Control (alle Varianten/all versions)
Aktive Antennen / Active Antennas

mit den Bestimmungen der nachstehenden Richtlinien übereinstimmen/
are in accordance with the following directives:

2002/95/EG (RoHS - Restriction of certain Hazardous Substances)
2002/96/EG (WEEE - Waste Electrical and Electronic Equipment)
ElektroG (Elektro- und Elektronikgerätegesetz)

Köln, 07.05.2009

Dr. Michael Gude, Geschäftsführer / CEO



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