

## IP-Control

Order no.: 7571 00 04, 7571 00 36

## Operation- and Assembly Instructions

### 1 Safety instructions

Installation and assembly of electrical devices may only be carried out by an electrician. Current accident prevention regulations must be followed.

Knowledge of network technology is required for commissioning.

Choked bus voltage must not be used as 10–30 V DC operating voltage.

The device PIN is located on a sticker with these instructions and on the back of the device. Store PIN in a safe place. Loss of the PIN prevents access to the configuration. The device must be returned to be reset.

Security measures should be taken to protect the network from unauthorised access if an Internet connection is established via the device.

Failure to observe these instructions may lead to damage to the device, fire, or other hazards.

### 2 Structure of the device

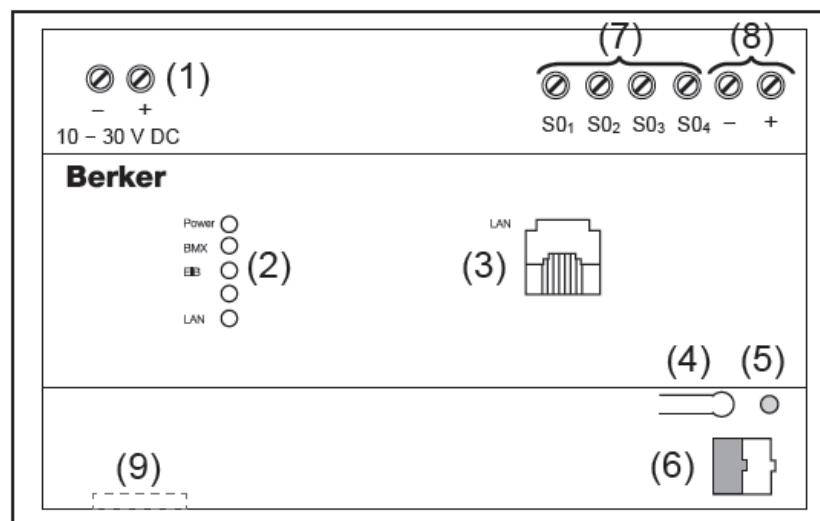



Figure 1: Device overview

- (1) Power supply 10 - 30 V DC
- (2) Signal LEDs (see **Operation**)
- (3) RJ45 socket for Ethernet LAN
- (4) KNX programming button
- (5) KNX programming LED
- (6) KNX bus terminal
- (7) S0 pulse input terminal (for e.g. energymeter)
- (8) Terminal for S0 pulse input power supply 24 V DC
- (9) USB 2.0 terminal for 1-Wire

 Further details can be found in product documentation at [www.berker.com](http://www.berker.com).

### 3 Function

IP-Control forms the interface between an Ethernet IP LAN (LAN = **L**ocal **A**rea **N**etwork) and the KNX system. A local PC in a LAN or similar LAN devices such as a tablet PC gives users access to their KNX system via the Ethernet connection.

IP-Control functions as a server and is used as a central control, signal and command unit. Configuration and operation is carried out via a JAVA enabled web browser. The visualisation interface can actually be used without JAVA, only with a browser.


Access is also possible via the Internet. Internet connection can be established via DSL, LAN (RJ45 connection) with a router and a directoryserver.

The device is designed to be operated in a distribution box or control cabinet.

### 4 Operation

#### Visualisation interface

The visualisation and user interface is created via a browser. This should be adapted to the user's requirements and building function. The design of the user interface and the function elements should be agreed with the user.

 Exact configuration details can be found in the comprehensive product documentation at [www.berker.com](http://www.berker.com).

#### Operating status display

The current operating status of the IP-Control is displayed by signal LEDs on the front of the device:

<b>Power LED</b>	
<i>OFF</i>	The device is not ready for operation. There is no power supply.
<i>GREEN</i>	The device is ready for operation.
<i>ORANGE</i>	The device is booting.
<b>BMX LED</b>	
<i>OFF</i>	The application server is not running. Only access to the IP-Control startpage.
<i>GREEN</i>	The application server is running.
<i>GREEN flashing</i>	Indicates current communication via BMX-protocol.
<b>EIB LED</b>	
<i>OFF</i>	The KNX-driver is not running.
<i>RED flashing</i>	The IP-Control starts the KNX-driver.
<i>GREEN</i>	The KNX-driver is running.
<i>ORANGE flashing</i>	The KNX-driver processes telegrams.
<b>LAN LED</b>	
<i>OFF</i>	The device is not connected to LAN.
<i>GREEN</i>	The device is physically connected to LAN.
<i>ORANGE flashing</i>	The device is exchanging data with the LAN.

## 5 Information for electricians

### 5.1 Assembly and electrical connections



#### CAUTION!

Risk of destruction of the device.

Fault voltages may occur when working under voltage.

Isolate from voltage before connecting the installation environment.

#### Install device

- Clip device onto DIN rail in accordance with DIN EN 60715.
- i** Device gets warm during operation. Observe maximum operating temperature. Ensure sufficient heat dissipation.

#### Connect device (figures 1 and 2)

- Connect bus line to bus terminal (figure 1, 6).
- Connect power supply to the screw terminals (figure 1, 1) according to markings.
- i** The unchoked output of a KNX power supply can be used as power supply.
- Insert network connection (LAN) in RJ45 socket (figure 1, 3).
- i** Use crossover network cable if connecting directly to a PC.

When using the S0-interface (figure 2):

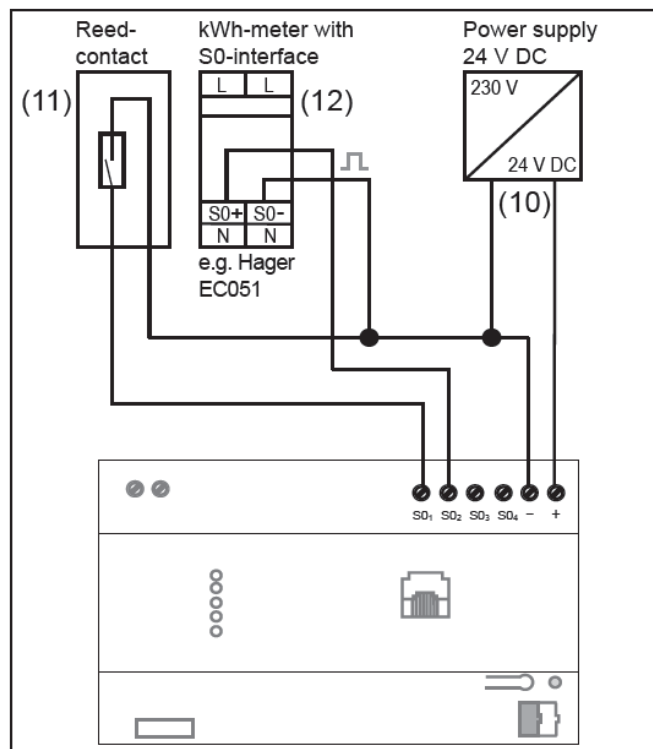


Figure 2: S0-connection diagram

- Connect 24 V DC to the terminal for S0 pulse input power supply (figure 2, 10).




### ATTENTION!

**Risk of destruction of the device.**

**The S0-terminals (figure 1, 7 - 8) are not suitable for mains voltage 230 V AC.**


- Connect the S0 pulse input devices (figure 2, 11 - 12) to the S0 pulse input terminals as shown in figure 2.

### Making ready for operation

- Switch on bus voltage.
-  IP-Control does not require ETS application. Bus coupling does not require programming.
- Switch on supply voltage.  
During the boot phase the Power LED lights up orange for approx. 30 secs. The end of the boot phase is signalled by test of all LEDs. The Power LED lights up green on completion of the boot phase.  
The device is ready for operation.


### Setting up basic configuration

The following steps are required for setting up complete basic configuration:

- Set up PC access to IP-Control via network
- Start configuration tool
- Complete basic settings
-  Exact configuration details can be found in the comprehensive product documentation at [www.berker.com](http://www.berker.com).



### Set up PC access to IP-Control via network

The device is ready for operation. A PC is connected. A current version of JAVA is installed (**Technical Data**).

- Ascertain and note current network configuration of PC.
- Set up network address of PC in range 192.168.1.x., e. g. 192.168.1.25. Standard subnet mask for 192.168.x.x is 255.255.255.0.
-  IP-Control is pre-programmed with factory set LAN IP address 192.168.1.10. If another network participant uses this IP address, they should be separated to avoid network conflicts. If it is unclear whether this IP address is already in use, a direct connection of the PC and IP-Control via crossover cable will avoid any possible network conflicts.
- Launch the browser.
- Enter the IP address of the IP-Control 192.168.1.10 in the address bar.  
The IP-Control start page opens. PC access to the IP-Control is created.

### Start configuration tool

PC access to the IP-Control is created. The IP-Control start page is open.

- Click on the **System** menu item.  
An encoded connection starts. The IP-Control login window opens.
- Enter your username and password in the login window. The factory set access data are:  
Username: admin  
Password: berker
-  The administrator's access details should be changed to avoid unauthorised access.
- Enter device PIN.
-  The device PIN is located on a sticker with these instructions and on the back of the device. This serves to identify the IP-Control and is unique. It cannot be changed and is requested every time the configuration tool is used.

The configuration tool opens. The interface of the **Configuration** tab is visible on the screen (figure 3).

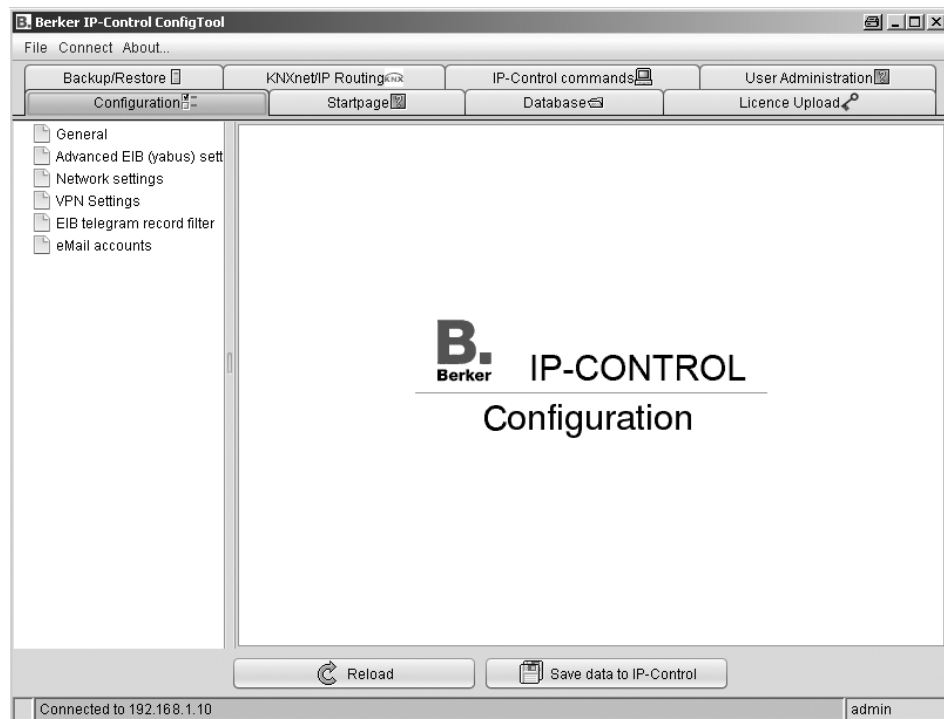


Figure 3: Configuration

### Complete basic settings

The configuration is open. The **Configuration** screen is in the foreground.

- Click on the **General** menu item in the left field.  
The current settings are displayed (figure 4).

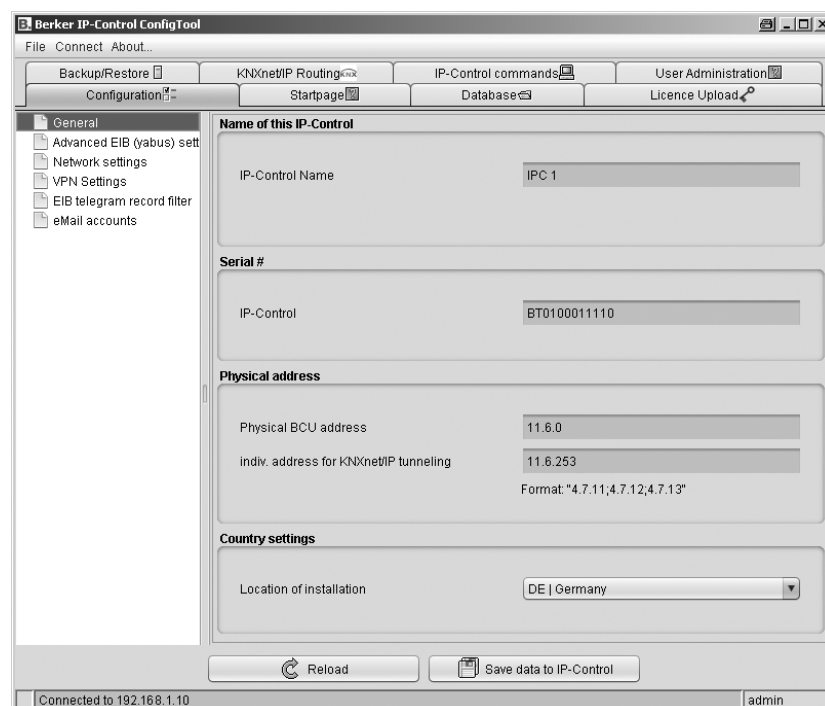




Figure 4: General window

- Allocate a name in the **IP-Control Name** field.
  -  The name can be used to identify the device via a discovery tool if there are several IP-Controls in the network.
  - Allocate **Physical BCU address** for the KNX.
  -  Follow conventions used for allocating physical addresses in KNX.
  - Click on the **Network settings** menu item.
- A window is displayed showing the current settings (figure 5).

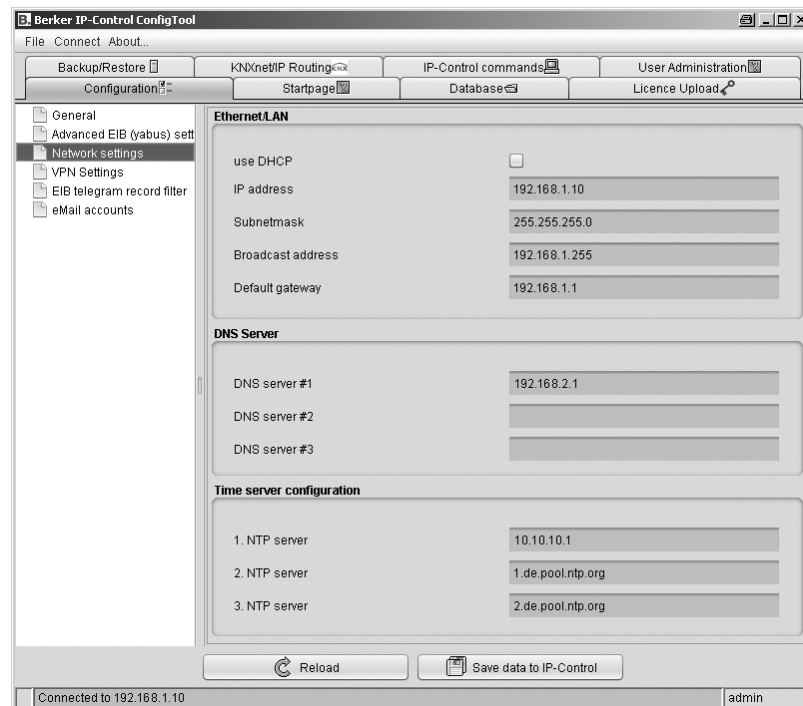







Figure 5: Network settings window

- Allocate **IP address**.
-  The device can be accessed in the network under this IP address. If necessary, select an available IP address from the originally noted network configuration that the PC was connected to if this is to be used again.
- Enter **Subnet mask**.
-  A standard subnet mask for local networks is 255.255.255.0.
- Enter IP address of **Default gateway**.
-  Here The external IP address of the router in the network is to be entered here.
- Enter at least one **DNS Server**.
-  The relevant IP addresses should be entered here if DNS servers are used for name resolution. Otherwise, with many routers the IP address of the standard gateway is entered again for the **DNS server no.1**.
- Save new configuration with **Save data** and close browser.  
The changes are accepted. The device will automatically restart if the network settings are changed. The basic settings are completed.
- Amend PC network settings if necessary. The IP address must be in the IP address range of the IP-Control.
-  When the IP-Control is next used the new IP address must be entered in the browser's address bar.

## 6 Appendix

### 6.1 Technical data

Dimensions (W x H x D)	144 x 90 x 64 mm
Operating voltage	10 ... 30 V DC
Power consumption	≤ 5 VA
Bus voltage	via KNX
Operating temperature	0 to 35 °C
Operating system	Embedded Linux, Java Runtime Engine Version 7 Update 51 or higher necessary
Processor	Vortex 86DX@600 Mhz
Memory	256 Mbyte SD-RAM 4 Gbyte Flash (Micro SD-Card)

### 6.2 Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

Our products are under guarantee within the scope of the statutory provisions.

If you have a warranty claim, please contact the point of sale or ship the device postage free with a description of the fault to the appropriate regional representative.

### 6.3 Address of manufacturer

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[www.berker.com](http://www.berker.com)