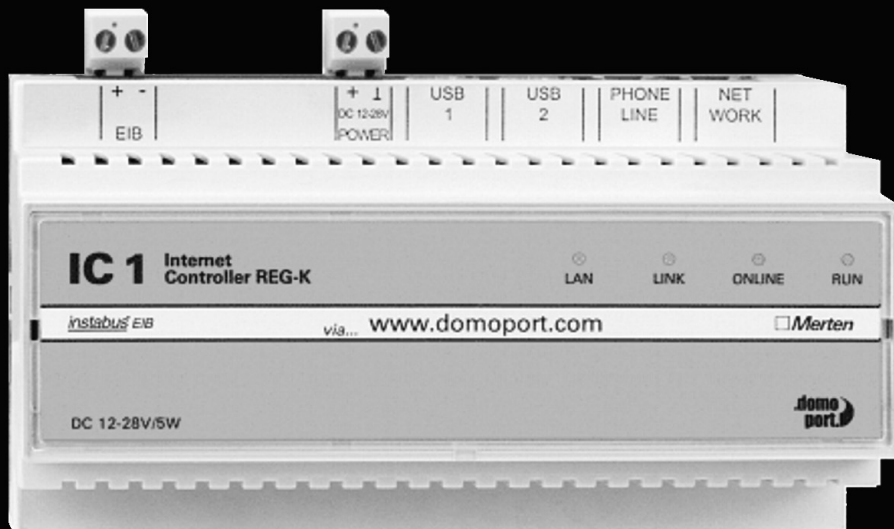


User manual

IC1 ^{EIB} Internet Controller

The complete solution for remote monitoring and control.



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IC 1 EIB connecting guide

Domoport registration data:

Main user name: _____

Device name: _____

Password: _____

Registered at: _____

IC 1 EIB device data:

SN: _____

Telephone number: _____

IP-Adress (if so): _____

Installation place: _____

Phys. EIB adress: _____

Modem type: ISDN ☐

GSM ☐

EIB Data nodes:

[illegible]

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1.

Introduction

The IC 1 EIB is a network and Internet Controller for the switching cabinet. It provides a complete solution for remote control and monitoring of buildings and facilities over the Internet. The IC 1 EIB can be globally accessed via the www.domoport.com Internet portal. A standard web browser and e-mail client replaces the usual software. Thus the IC 1 EIB provides global access to your in-house technology without requiring the device to be permanently connected to the Internet.

This chapter illustrates the application areas and configuration options of the IC 1 EIB. Furthermore it supplies information on the interaction between the IC 1 EIB, the INSTABUS EIB and the www.domoport.com Internet portal, as well as the security concept of this service.

Application areas and configuration options

1 The IC 1 EIB can be set up without previous training or additional software. As soon as you have registered the device at Domoport, it is already configured. You do not have to install any software: The IC 1 EIB works with Internet technology exclusively - and from any Internet access. Thus you can control and monitor your building and facility equipment from anywhere in the world.

Areas of application

The IC 1 EIB Internet Controller REG-K can be implemented in technical building management, small trade or home applications - in fact, wherever a simple and economic solution for remote surveillance and control of building technology is required. The following list provides information on the data that can be monitored and controlled with the IC 1 EIB:

- Electrical installations and systems
- Heating systems, ventilation, and air conditioning systems
- Wind and solar energy, block type thermal power stations, and fuel cells
- Security technology
- IT systems
- Sanitary facilities

The IC 1 EIB can be operated via the Internet or in a network (Ethernet): If operated in a network you can combine several devices in one building and thus control a large number of data points; or you can operate several devices in different buildings via the Internet. Thus the security and in-house equipment of all your premises are combined in one application: You can access your office premises, home, weekend house or boat from anywhere at anytime - regardless of the actual location of these properties.

Software

The IC 1 EIB device offers the following options, without requiring programming or additional software:

- Remote control and function monitoring.
- Live video surveillance.
- Remote alarms as e-mail, or to a telephone/mobile telephone via provider.
- Timer with 32 channels.
- Visualization, recording and saving of energy consumption, temperatures and other important data.
- Macro editor for logical links

The software of the IC 1 EIB is completely preinstalled on the device itself and does not have to be installed on a computer. To operate it you only require a conventional web browser such as the Microsoft Internet Explorer or the Netscape Navigator. Thus you can use any Internet access to monitor and control your building and facility technology. Furthermore you can also operate the IC 1 EIB with mobile devices to which you have Internet access. The following software (for example) is required for mobile remote control of the IC 1 EIB: a WAP browser on a mobile telephone or a web browser on a handheld PC or organizer. The following lists summarizes the access options to the www.domoport.com Internet service and thus to the IC 1 EIB:

- Office PC
- Home PC
- Notebook/laptop PC
- Public PC, internet cafe
- WAP mobile telephone
- PDA
- Organizer

Hardware

The IC 1 EIB can be integrated into the switching cabinet as serial component. It is an independent microprocessor device with embedded technology and an integrated webserver. The connection to the power and telephone network, as well as the Intranet - if applicable - is done via standard connections. The configuration process has been reduced to a minimum: You only need to set the IP address of the IC 1 EIB and your Internet service provider (ISP). Depending on the hardware requirements, the IC 1 EIB offers the following configuration interfaces:

- Via the Ethernet (LAN, WAN)
- Via the Internet (telephone dial-up, direct)

The IC 1 EIB contains an EIB interface with which it monitors and switches up to 256 EIB group addresses (refer to the illustration "In- and outputs of the IC 1 EIB").

All IC 1 EIB Internet Controllers REG-K can be networked via a LAN interface.



Configuration outside of Germany: On the IC 1 EIB device a German Internet service provider has been preset. If you configure the device via the Internet, this might result in international telephone charges at the initial configuration. At the initial configuration you should therefore set up an Internet access for the country in which you are operating the IC 1 EIB.

Functionality

The IC 1 EIB functions independently and does not require any programming. Nevertheless the IC 1 EIB concept is flexible enough to enable you to adapt its functionality to your wishes and needs. To add functionality, the program modules of the IC 1 EIB (refer to the "Program modules of the IC 1 EIB" box); logical functions are created via the macro editor.

Program module: Through its program modules, the IC 1 EIB provides you with completely preconfigured functions. You only need to enter your data, such as the switching times for the timer, then the device is ready for operation.

The following list displays the functions of the program modules:

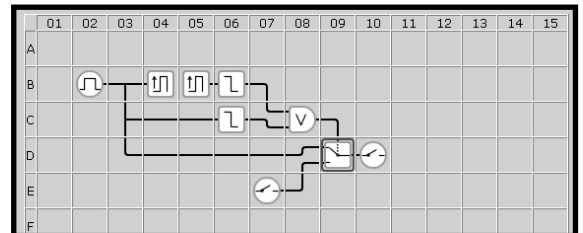
- Visualization.
- Remote control and function monitoring.
- Timed switching.
- Alarm and surveillance system for e.g. burglary and fire protection.
- Energy consumption logs, efficiency graphs, meter readings and other data.
- Video surveillance and image storage.

Macro editor: The IC 1 EIB has its own macro editor (also called "chessboard editor"). The macro editor provides you with a powerful programming environment with which you can easily develop your own software functionality. For example: It only takes a few minutes to configure an alarm notification that is dependent on a meter reading. The macro editor enables you to assign logical, arithmetical and temporal functions to the inputs and outputs of your IC 1 EIB (refer to Fig. "Schematic view of a macro"). No previous knowledge or experience is required.



Program modules of the IC 1 EIB: The software of the IC 1 EIB contains program modules. Program modules are complete applications made available by the device. The following list displays the program modules of the IC 1 EIB:

- Timer
- E-mailer
- History module
- Macro editor



Schematic view of a macro



A macro is a user-defined script and serves as a programming tool. You can use macros to implement automatic procedures with the IC 1 EIB for these purposes, the IC 1 EIB includes a macro editor for querying and setting device values. You can link the device values with logical, temporal and arithmetical functions, thus graphically creating an automated procedure.

IC 1 EIB und Domoport

2 The concept behind the IC 1 EIB technology is the cooperation of the global Internet portal www.domoport.com with the device software and security technology that was especially designed for this purpose. However, Domoport offers much more than simply an access portal to your IC 1 EIB Internet Controller REG-K: Domoport is an extensive security platform via which you can administrate and protect your IC 1 EIB devices in the form of accounts. The highly developed cryptography that is used on the Domoport server effectively prevents unauthorized access to your IC 1 EIB devices.

Teamwork between IC 1 EIB and Domoport

The IC 1 EIB technology has been specifically designed for the interaction with the www.domoport.com Internet portal. Domoport is a dial-up service with restricted access. In combination with the IC 1 EIB technology it enables secure control and monitoring of the facilities you own or manage. Via Domoport you can access your IC 1 EIB at any time, without requiring it to be permanently connected to the Internet. Domoport eliminates the need for an extensive control center and access software: You only need a standard web browser to control your devices.

The Domoport platform not only offers secure access to your devices, but also extensive management and administration functions: You can create user and device accounts on the Domoport server. You have full control over the administration of the accounts. For example, a janitor has limited access to the IC 1 EIB devices of a facility. As administrator you have full access to all devices in all your facilities. The account administration on Domoport is very flexible: For each device you can create separate specified co-users intra your main user account. Reciprocally you can specify to which individual devices each co-user has access. Each account is protected via a user name and password and you can block it at any time. The following list explains the administrative functions of Domoport in key words:

- Main user account
- Co-user accounts
- Master data administration
- Device administration
- Co-user administration
- Blocking accounts
- Status report
- Security concept of Domoport



You can **access the Domoport Internet portal** via one of the following URLs:

- <http://www.domoport.com>
- <http://www.domoport.de>

To go to the **wap user interface**, add the following extension to the respective URL: **"/wap"**.

- <http://www.domoport.com/wap>
- <http://www.domoport.de/wap>

For more information on the WAP user interface of the Domoport Internet portal refer to chapter 4 under "WAP access".

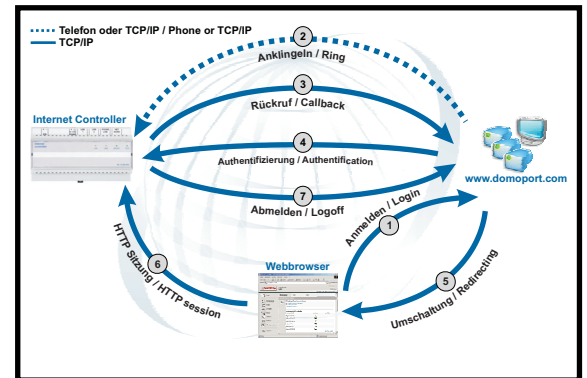


The **main user** is the account holder of an IC 1 EIB device account. He/she sets up the own **main user account** at the initial registration of the IC 1 EIB Internet Controller REG-K at the Domoport Internet service. The main user has all administrative rights and can set up **co-user accounts**. Co-users generally have limited access to one or more IC 1 EIB devices that have been set up in the main user account.

Domoport works with a matured security technology that can only be compared to the systems used in online banking. From the very first time the IC 1 EIB logs in at the Internet portal all transmitted pages are SSL encoded. The access authorization for a device is subject to a three-fold check (refer to Fig. »Communication between user, Domoport and IC 1 EIB«):

1. After you have set up an account initially, you have to log in at the Domoport Internet portal with your user name and password ❶. Now Domoport checks your access data. If your data corresponds to the data entered when you registered, you gain access to your user account. If you log out or if your access data was not correct, the connection to Domoport is closed. You have to log in with your user name and password again. The same applies if more than 15 minutes has expired and you still have not entered any valid access data.
2. You can dial your device from within your user account. Domoport then contacts the selected IC 1 EIB as follows: Domoport dials the number of the device. Thereby it checks, whether the line is busy or not ❷. The IC 1 EIB is thus instructed to go online and connect to the Domoport server. The IC 1 EIB does this via the preset ISP ❸. As soon as the IC 1 EIB is connected to Domoport, an encoded question is sent to it. It has to supply the correct answer. Question and answer are encoded and saved separately for each device. If Domoport is convinced that it is the right device, the device and your web browser are sent a coded "session key" ❹. The coded "session key" prevents another web browser to access the IC 1 EIB.
3. Only your web browser can now send the coded "session key" to the IC 1 EIB. The correct device can decode this key and compares it with the key code that is transmitted from Domoport. You are only accepted as user by the IC 1 EIB if the keys match (❺ and ❻). The key is valid until you log off ❼.

This security protocol is repeated every time a user logs in at an IC 1 EIB.



Communication between user, Domoport and IC 1 EIB

2.

IC 1 EIB Components

The IC 1 EIB product range offers modular system components. All components have been designed for use on top hat rails and can be combined. It is also possible to expand them at a later stage. The basic module of the system is always at least one IC 1 EIB Internet Controller REG-K. The

IC 1 EIB includes the following module alternatives: Analogue modem, ISDN modem, GSM modem or no modem (only for network operation). An IC 1 EIB with modem can be expanded by adding an IC 1 EIB without modem: The devices communicate via a lokal network, thus one single telephone connection for your building and facility technology suffices. Further system components include a power supply unit, uninterruptible power supply (UPS) unit as well as a standard and a radio-operated video module.

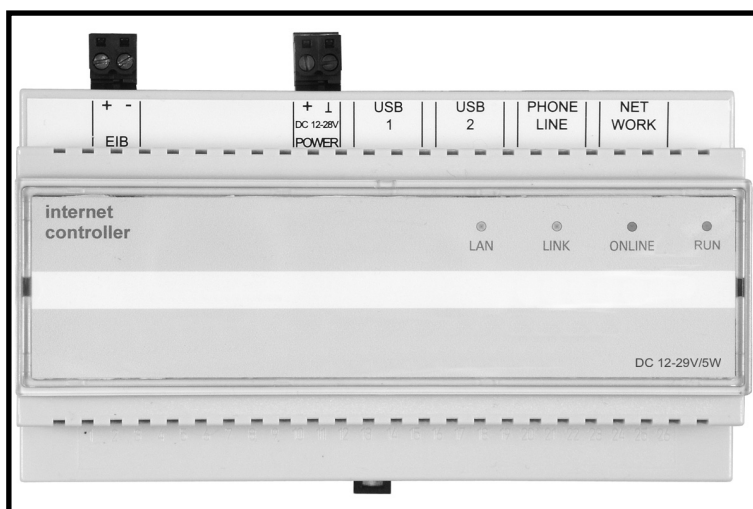
This chapter provides you with a short overview of the individual system components.

IC 1 EIB

1 The IC 1 EIB is the basic module of the IC 1 EIB product family. It is equipped with a 33 MHz processor and functions as controller component. The IC 1 EIB has an EIB interface with which it monitors and switches up to 256 EIB group addresses and 256 physical EIB objects, two USB interfaces, an Ethernet interface and a telephone input (optionally either digital, analog or GSM).

Housing and power supply

The IC 1 EIB is a serial device for use on top hat rails. It has a standard EN50022 housing (9 TE) and has been designed for use in an ambient temperature of 0 °C-45 °C. The IC 1 EIB requires 12V-29V direct current. The presence of voltage is indicated by the *RUN* LED.



IC 1 EIB Internet Controller REG-K



The **power supply DC 24V REG-K** takes care of the supplying the power. You can also use other commercially available power supply units with corresponding technical data. The supply voltages ranges from 10V DC to 24V DC. The power supply unit should have an output of 10W-15W.

Processor

The IC 1 EIB contains an embedded computer with a 32-bit RISC processor which has a clock frequency of 33 MHz and an internal clock. The internal clock has a buffer and is synchronized with a radio clock: The synchronization is performed at each Internet connection in accordance with the DCF77 standard.

EIB

With the EIB interface, the IC 1 EIB monitors and switches up to 256 EIB group addresses and 256 physical EIB objects.

Interfaces

The IC 1 EIB is equipped with two USB interface for one external video module respectively. The network connection can be done via an Ethernet RJ45 interface for LAN networks. The network interface, which has a transmission speed of 10/100 MBit/s is standard equipment with all IC 1 EIB types. The LED *LINK* signals the network presence and the LED *LAN* the network activity.

Linked devices: in addition, IC 1 EIB makes possible to reach on up to 32 linked devices. The linked devices must be no internet controller; they need only an integrated web server for the access via IC 1 EIB (e.g., webcams).

Modem

The IC 1 EIB is available with various modems. Furthermore a network version without a modem is available. The *ONLINE* LED indicates the online status of the modem. The various IC 1 EIB types are listed in the following table:

Overview: IC 1 EIB types

Name	Modem type	Transmission speed
IC 1 EIB 6951 02	Analogue Modem	56kBit/s
IC 1 EIB 6951 03	ISDN Modem	64kBit/s
IC 1 EIB 6951 04	GSM Modem	9,6kBit/s
IC 1 EIB 6951 01	without Modem	10/100MBit/s

Power supply:



Input for power supply
(DC 12-29V)

EIB:



EIB interfaces: The EIB connection is made using a twisted pair EIB connection (YTY2x2x0,8).

Interfaces:



2 USB interfaces for connecting system components such as video modules or other extension modules.



Network interfaces: The network connection is made using a standard RJ45 socket, either via a network distributor (hub, switch) or point-to-point via a crossover cable (included in the scope of supply).

Telephone connection:



RJ45 socket for connecting to a telephone replacement. Devices with analog modems can be connected using a TAE adapter.

IC 1 EIB components

2 All system components have been designed for the IC 1 EIB and are serial devices. The power supply DC 24V REG-K takes care of the power supply of the IC 1 EIB. The USV extension module REG-K (uninterruptible power supply unit) ensures that operation can continue in the event of a power failure. Standard or radio-operated video cameras can be connected to the IC 1 EIB for security and monitoring purposes. The USB video adapter REG-K (for USB connections) serves as interface to the video equipment.

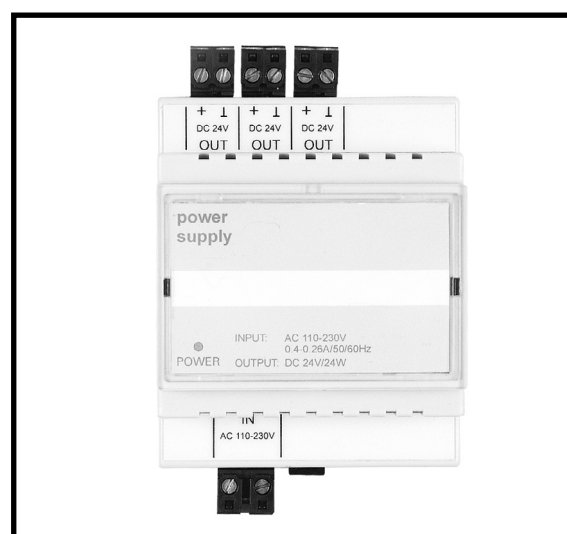
Power supply DC 24V REG-K

The power supply DC 24V REG-K is a system component of the IC 1 EIB Internet Controller REG-K. It supplies 24V DC to the IC 1 EIB and other system components. Three output terminals are provided for easy connection of the devices. The power supply DC 24V REG-K can be mounted on an EN50022 DIN rail to supply power to one IC 1 EIB and its system components. The input voltage range of the power supply DC 24V REG-K is 110-230V AC with 50/60Hz supply frequency. The output power is limited to max. 24 W. Avoid overloading the power supply DC 24V REG-K when connecting additional devices. Use the following table to compute the power requirements of the connected devices.

Power requirements of connected devices

Device	Max. power
IC 1 EIB (6951 02/6951 03)	5W
IC 1 EIB (6951 04)	8W
USV extension module REG-K (6930 02)	1,5W
USB video adapter REG-K (6681 01)	1,5W

The USV extension module REG-K, which contains an accumulator battery, serves as an extension module for the power supply DC 24V REG-K. This allows you to bridge power outages for up to an hour. The installation details and technical data are listed in the installation notes of the USV extension module REG-K.



Power supply DC 24V REG-K



For further information on the system components of the IC 1 EIB system please refer to the technical data sheets that are included with the respective device.

USV extension module REG-K

The USV extension module REG-K is a system component of the IC 1 EIB Internet Controller REG-K and is always installed and operated together with the power supply DC 24V REG-K. The device contains an intelligent charging circuit for NiMh accumulator batteries. The intelligent charging circuit ensures that the batteries are always optimally charged so that the longest possible power outage times can be bridged. This also ensures the longest possible operating life of the accumulator batteries. Please note that the USV extension module REG-K can only be operated together with the power supply DC 24V REG-K. The device also contains a floating contact switch, with which it can easily be determined whether or not the device is in emergency operation mode. The POWER LED on the front panel indicates which of the two modes the device is currently operating in (refer to the table "Indicated modes").

Indicated modes

Color	Mode
Green light	Normal mode: Mains power supply
Red light	Accumulator battery operation



USV extension module REG-K

USB video adapter REG-K

The USB video adapter REG-K is a system component of the IC 1 EIB Internet Controller REG-K and adds live video transmission and display features to the IC 1 EIB. This device converts the analogue color video signals (PAL, NTSC) into digital data and transfers these via USB (Universal Serial Bus) to the IC 1 EIB. The USB video adapter REG-K receives power through the USB connection; no further external power supply is necessary. Any commercially available video camera with a 1 Vss/750 hm output signal in PAL or NTSC format can be used provide the video input signal.



USB video adapter REG-K

3.

Connection

To operate, the IC 1 EIB must be connected to a power supply, telephone line and - optionally - a network. The device has been developed for installation in the switching cabinet, which enables you to comfortably perform all cabling at a central point. The IC 1 EIB offers two USB ports. USB devices, such as the USB video adapter REG-K, can simply be plugged into the IC 1 EIB; the USB need not be configured or set up. Configuring the IC 1 EIB only entails setting up the network data and internet connection.

This chapter contains the installation and configuration instructions for the IC 1 EIB.

Assembly and installation

1 The IC 1 EIB is a serial device with easily accessible standard power supply, telephone and network connections. The power supply DC 24V REG-K takes care of the voltage supply. The power supply unit requires a 100 -250 V AC input voltage. The power supply DC 24V REG-K is connected to the IC 1 EIB via standard cable terminal screws. Depending on the IC 1 EIB type, the device is either connected to a TAE or an ISDN socket. The IC 1 EIB can be connected to network via the standard 10/100 MBit/s Ethernet port.

Assembling the IC 1 EIB

Assemble the IC 1 EIB Internet Controller REG-K on an appropriate DIN rail.

Telephone

All IC 1 EIB types that are equipped with a modem can be connected to a telephone line and used to dial the Internet. The devices are supplied with the respective modem configuration (analogue, ISDN, GSM) by the factory and can not be modified subsequently!

Connect the devices in accordance with the following illustrations.

- **Analogue telephone connection.**
The supplied TAE adapter enables connection to any »F«- or »N«-coded TAE socket. Please note that the telephone number of the analogue connection has to be entered in the configuration of the Domoport user account. This is a prerequisite for accessing the device at a later stage.
- **ISDN telephone connection:**
Please note that in the case of ISDN operation an MSN number (Multiple Subscriber Number) must be assigned to the IC 1 EIB (as is the case for any ISDN device). The IC 1 EIB Internet Controller REG-K subsequently reacts to incoming calls to this number. However, in the Domoport device account you have to enter the entire telephone number of the IC 1 EIB.

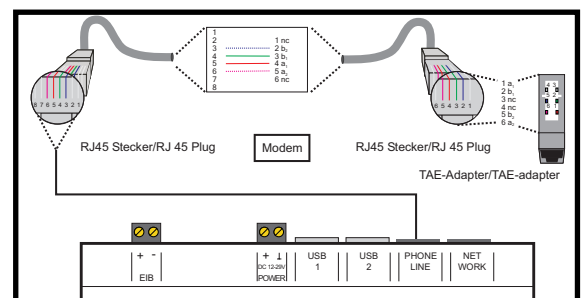
Notes regarding operation with telephone systems:

When used as an extension in a telephone system, make sure that an MSN is assigned in the system and that the device is registered at the system as a telephone - not as a data terminal device.

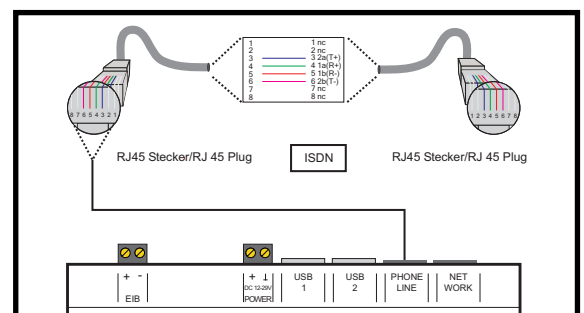


Caution: Installation and assembly of electrical devices may only be performed by qualified electricians. Please observe the installation manuals of the respective devices.

- Please observe the installation requirements applicable in your country.
- Observe proper polarity.
- Only operate the power supply DC 24V REG-K with an IC 1 EIB Internet Controller REG-K and/or USV extension module REG-K.
- Avoid overloading the equipment; observe the electrical requirements of the connected equipment precisely.



Connecting diagram analogue telephone connection



Connecting diagram ISDN telephone connection



Multiple Subscriber Numbering (MSN):

An MSN does not consist of the entire telephone number. It consists of as many numbers from the right as is needed to differentiate between the various numbers assigned to the telephone line. Usually the telephone number does not have a dialing code.

If you do not assign an MSN for your IC 1 EIB, the device will react to each incoming call and automatically log on to the Internet.

LAN (Ethernet)

You can operate the IC 1 EIB as an individual device or as part of an existing network. The Ethernet network port is the most important interface for Internet-compatible devices. The network interface of the IC 1 EIB supports the 10BaseT (10 MBit) and 100BaseT (100 MBit) standards. It is standardly available on all IC 1 EIB types. All IC 1 EIB devices can thus be integrated into any network. The network connection is established by using a standard RJ45 socket, either via a network distributor (hub, switch) or point-to-point via a crossover cable (included in the scope of supply).

By assigning an IP address you integrate the IC 1 EIB into your network or directly into the Internet, if a direct Internet access is available via a router etc. Furthermore the IP address enables you to easily access all functions of the device via any network-compatible PC.



Continue as follows to set up a point-to-point connection between the PC and IC 1 EIB:

1. Connect the NETWORK output of the IC 1 EIB to the network interface of your computer via the supplied crossover cable.
2. To access the IC 1 EIB, open an Internet browser on your computer.
3. Enter the following IP address in the address box of the Internet browser: <http://192.168.0.222>
4. Press the Enter key. The Internet browser opens the home page of the IC 1 EIB. Go to *Configuration* ⇒ *Basic configuration* to modify the device configuration

USB interface for external devices

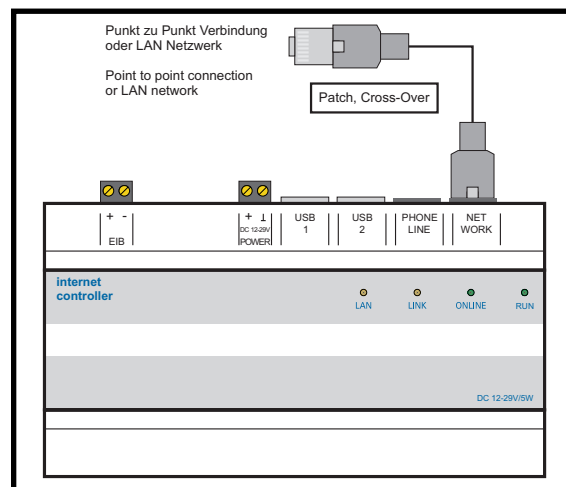
The IC 1 EIB has two USB (Universal Serial Bus) interfaces for connecting system components such as video modules or other extension modules. USB has the advantage that the extension devices are supplied with power internally via the interface, therefore no additional cabling is required. Furthermore USB devices are "Plug and Play" devices: You can simply connect a USB extension module to the IC 1 EIB without needing to load or activate any drivers in advance. The functions offered by the extension devices are thus immediately at your disposal.



Continue as follows to connect the video module and other USB devices to the IC 1 EIB:

1. Attach the USB video adapter REG-K to the right of the IC 1 EIB Internet Controller REG-K on the DIN rail in the switching cabinet.

Note: Do not mount the device directly next to possible sources of disturbance such as power supply units or dimmers.



Connecting diagram LAN connection



Configuration options of the IC 1 EIB:

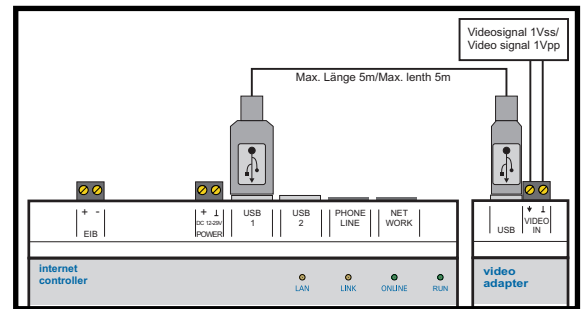
To assign the IP address and to configure the IC 1 EIB Internet Controller REG-K you have to access the software of the IC 1 EIB. The following options for configuring the device exist:

1. Via the network interface of the IC 1 EIB:
 - Point-to-point connection to a computer with a network adapter via a crossover cable (included in the scope of supply, red cable).
 - Connection to a standard network via a patch cable (included in the scope of supply, gray cable).
2. Via the Internet:
 - Internet connection to www.domoport.com by using the preset modem/ISDN settings (only within Germany).



Note: The IC 1 EIB uses operating system with an own USB driver. It is not possible to use foreign USB devices such as webcams or other devices on the IC 1 EIB. Use only Merten extension devices with the corresponding software support.

2. Connect the USB interface of the USB video adapter REG-K with the USB 1 or USB 2 interface of the IC 1 EIB via the enclosed USB cable.
Note: The cable may not be longer than 5 m.
3. Only when connecting the USB video adapter REG-K: Connect the video signal cable to the input terminal VIDEO IN of the USB video adapter REG-K.
Note: Observe the maximum cable length and signal voltages.



Connecting diagram USB connecting with USB video adapter REG-K

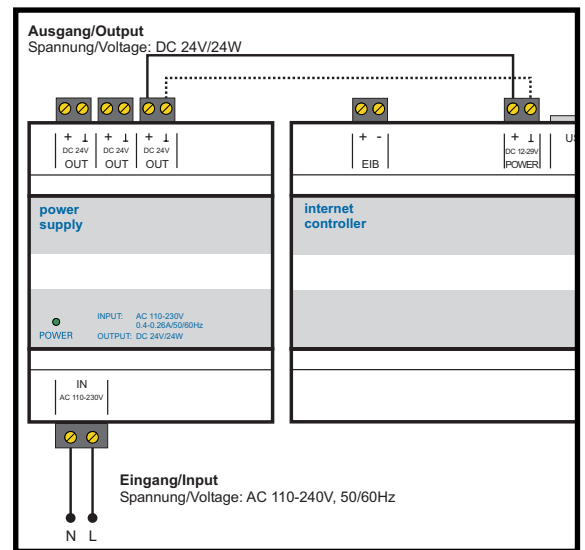
Power supply

If you realized all connections, you can plug in the power supply.



Continue as follows to connect the power supply:

1. Attach the power supply DC 24V REG-K to the DIN rails in the switch cabinet.
2. Attach the IN input terminal of the power supply DC 24V REG-K to the mains power (100-250V AC) according to the circuit diagram.
Caution: The input voltage range has to lie between 100V and 250V AC. Please observe the technical data of the power supply unit.
3. Connect the **POWER** terminal with one of the three output terminals **OUT** (24V DC) of the IC 1 EIB according to the circuit diagram. Observe proper polarity.
4. For further information please refer to the installation manual of the power supply DC 24V REG-K.

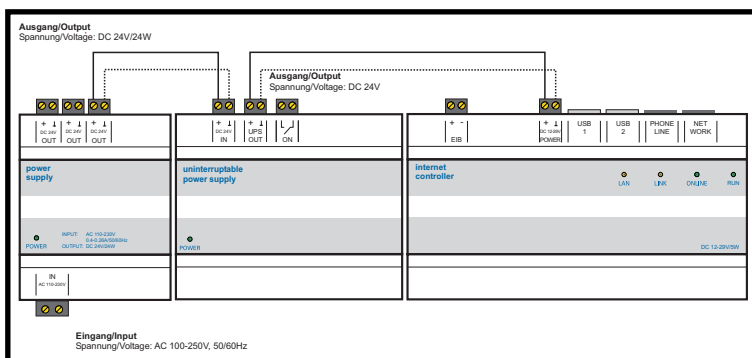


Connecting diagram current supply with power supply DC 24V REG-K



Continue as follows to connect the power supply unit with the USV extension module REG-K:

1. Attach the USV extension module REG-K to the right of the power supply DC 24V REG-K on the DIN rails in the switching cabinet.
2. Attach the output terminals *OUT* of the power supply DC 24V REG-K to the input *IN* of the USV extension module REG-K.
3. Attach the output terminals *UPS OUT* of the USV extension module REG-K to the power input *POWER* of the IC 1 EIB.
Caution: Please be careful that the connected power does not to exceed the maximum power rating of the power supply DC 24V REG-K. Operate the USV extension module REG-K only with a power supply DC 24V REG-K and the IC 1 EIB Internet Controller REG-K.
4. For further information, please refer to the installation manual of the power supply DC 24V REG-K.



Connecting diagram current supply with power supply and USV extension module REG-K

4.

Startup

The IC 1 EIB Internet Controller REG-K operates with device software that has been specifically developed to complement its functionality and hardware. You can operate the device software via a comfortable HTML user interface. The user interface, as well as the software, is installed on the device. To communicate with the IC 1 EIB, you need a network or Internet connection between the IC 1 EIB and a computer with a standard HTML- or WAP browser. You set up the network, e-mail and internet connections in the basic settings of the IC 1 EIB when initially starting up the device. The EIB addresses, as well as user accounts for the device, are also configured in the basic settings. Furthermore you can link several IC 1 EIB Internet Controllers REG-K with each other, under *Linked devices*.

Device access

1 The IC 1 EIB Internet Controller REG-K has an ethernet- as well as a telephone interface. Both interfaces are »communication interfaces« about which you can access the device software.

Options for communicating with the IC 1 EIB

To start up and configure the IC 1 EIB Internet Controller REG-K, you have to access the software on the IC 1 EIB. You can communicate with the device as follows:

Version 1: **Point-to-point connection** to a computer that has a network adapter, via a crossover cable (included in the scope of supply, red cable).

For this version you require a PC with an Ethernet adapter (10/100 MBit/s) and an installed web browser (Microsoft Internet Explorer 5.0 and above, or Netscape Communicator 4.7x and above)

Version 2: **Internet connection** with the IC 1 EIB via www.domoport.de or www.domoport.com by using the preset modem/ISDN settings (only possible within Germany).

For this version you require a PC with Internet access (modem, ISDN, DSL or dedicated line) and installed web browser (Microsoft Internet Explorer 5.0 and above, or Netscape Communicator 4.7x and above), and an Internet access via an Internet Service Provider (ISP).

Version 3: **Integration in a standard network**, via a patchcable (gray cable, included in the scope of supply).

This might require you to modify the network pre-settings of the IC 1 EIB to fit into your existing network. Use either version 1 or version 2.

Version 4: **Direct dial-in via modem and telephone connection to the IC 1 EIB.**

Point-to-point connection

In the case of the point-to-point connection, the IC 1 EIB communicates with the configuration PC via a LAN connection. The web browser of the PC has to be configured for the LAN access in advance. The procedure for setting the browser and the LAN connections is different in each operating system. As an example, we have taken the LAN and browser settings for MS Windows 2000.

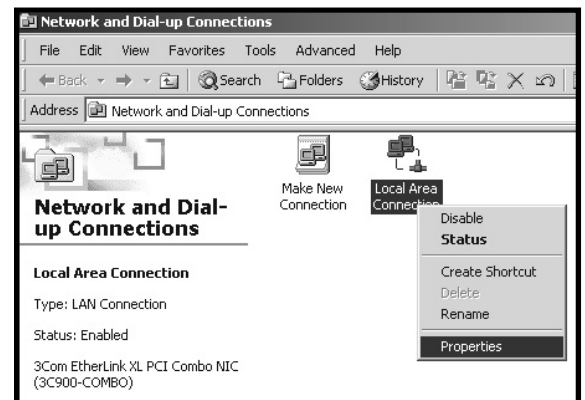
You can set up a point-to-point connection to the IC 1 EIB by performing the following steps:

- On the configuration PC, set up a LAN connection for the Ethernet interface (network board).
- Configure your web browser for LAN access.
- Establish a connection with the IC 1 EIB via the web browser.

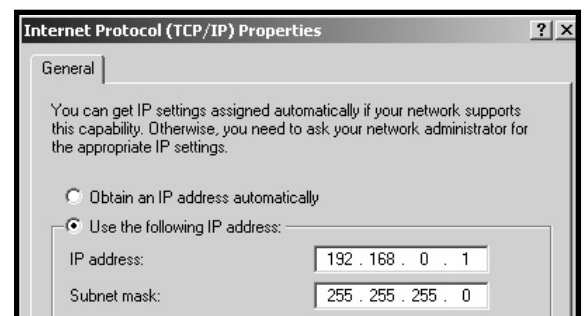


To install a LAN connection for the computer's Ethernet interface:

1. On the Windows taskbar of the PC, click *Start* ⇒ *Settings* ⇒ *Network and Dial-up Connections*. Windows opens *Network and Dial-up Connections*.
2. Click *Local Area Connection* with the right mouse button and select *Properties* from the context menu. Windows opens *Local Area Connection Properties*.
3. Select the *Internet protocol (TCP/IP)* check box. Windows activates the TCP/IP (Transmission Control Protocol/Internet Protocol; protocol for communication between computers) for this LAN connection.
4. Select *Internet protocol (TCP/IP)* and click *Properties*. Windows opens the *Internet Protocol (TCP/IP) Properties* window.
5. Select *Use the following IP address*. Windows assigns the computer a fixed IP address, which you can enter under *IP Address*.
6. Enter these IP addresses for the computer under *IP Address*: "192.168.0.1" (or another free IP address in the area between 192.168.0.1 and 192.168.0.254, if you have set 255.255.255.0 as the subnet mask). In a network, your configuration computer is visible under the set IP address.
Note: You may not enter 192.168.0.222 as IP address at this point. It has already been preset for the IC 1 EIB.
7. Enter the following subnet mask under *Subnet mask*: "255.255.255.0" (or another subnet mask for which the set IP address is valid within the intranet). You thus specify the valid range of IP addresses for your intranet.
8. Confirm the settings with *OK*.



Context menu *Local Area Connection Properties*



Assigning a fixed IP address



To configure the browser settings:

1. Click **Start** ⇒ **Settings** ⇒ **Control Panel**. Windows opens the **Control Panel**.
2. Double-click **Internet Options**. Windows opens the **Internet Properties**.
3. Click the **Connections** tab.
4. Select **Never dial a connection**. Windows no longer implements installed RAS connections automatically.
5. Click **LAN Settings**. Windows opens **Local Area Network (LAN) Settings**.
6. Clear the **Use a proxy server** check box under **Proxy server**.

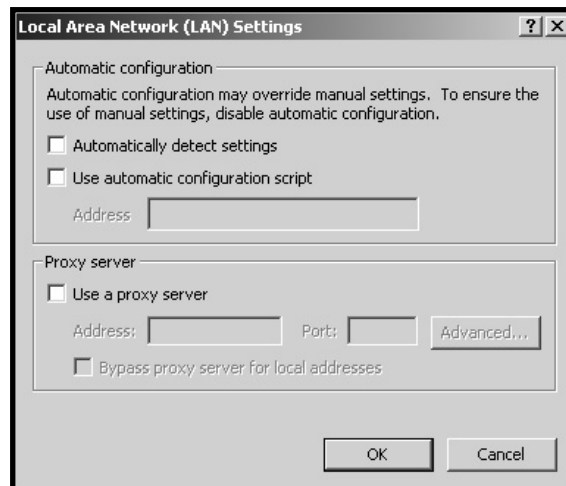
Alternative:

- If your RAS connection needs a proxy server, activate the **Use a proxy server** and **Bypass proxy server for local addresses** check boxes.
 - Click on **Advanced...**. Windows opens the **Proxy Settings** window.
 - Enter the IP address of the IC 1 EIB under **Exceptions** (IP at delivery: "192.168.0.222/classic").
7. Confirm all settings with **OK**.

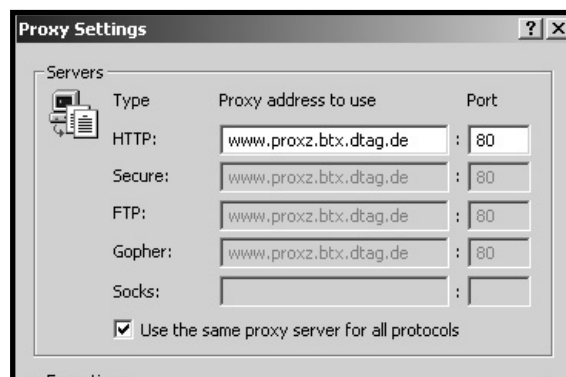


To establish a connection with the IC 1 EIB via the web browser:

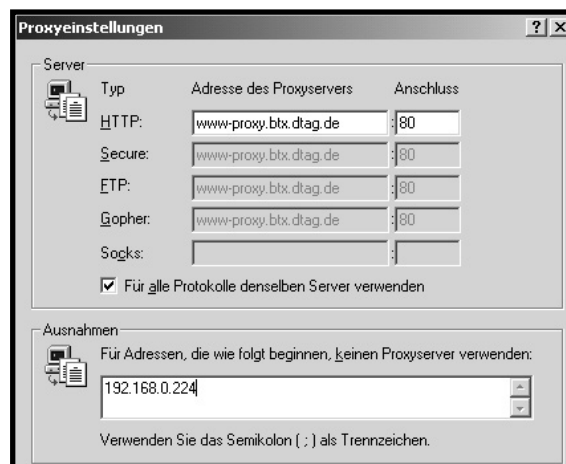
1. Start the web browser (Microsoft Internet Explorer 5.0 and above, or Netscape Communicator 4.7x and above)
2. Enter the IP address "http://192.168.0.222/classic" into the address box of the web browser. Press the Enter key. The web browser opens up the **Device direct access** page.
3. Under **Device guest operation**, click the **Guest access** button. The IC 1 EIB opens the device home page.
Note: In the default configuration, the **Guest access** button is assigned to the Administrator user right. If required, change the user right assignment for the **Guest access** button, under **Configuration** ⇒ **User accounts** ⇒ **Access levels**. Additional instructions on the assignment of user rights are provided in Chapter 4.9 "User rights".



Local area connection properties



Deselecting automatic dial-up



Configuring exception addresses

Internet connection via Domoport

You can establish an Internet connection to the IC 1 EIB via the Domoport portal by using the web browser on your own PC. To do so, you first have to set up a main user account on Domoport. You can connect with the IC 1 EIB via your user account. Domoport serves as switchboard between you and the IC 1 EIB.: Domoport initializes an online connection between the IC 1 EIB and your web browser, using the provider data set on the IC 1 EIB.

You can set up an Internet connection to the IC 1 EIB via Domoport by performing the following steps:

- Set up a main user account on Domoport.
- Establish a connection to the IC 1 EIB via the Domoport user account.



To set up a main user account on Domoport:

1. Establish a connection with the Internet.
2. Start your Web browser and enter one of the URLs in the "Domoport top level domains" table. You then reach the Domoport portal page.
3. Click *Register now!* on the portal. Domoport displays the *Registration of a Domoport main user account with IC 1 EIB device data* page.
4. Device data:
Enter the SN, PIN and telephone number of the IC 1 EIB and select a meaningful device name (for example MyHome).
Note: If you are operating the IC 1 EIB on a dedicated line, enter the Internet IP address instead of the telephone number.
5. Registration:
Enter a meaningful main user name and password (for example John.Public).
Note: The main user name is simultaneously the name of the main user account. You cannot change the main user name at a later stage.
6. Use the relevant check box to confirm that you have read and accepted our "General terms and conditions". Subsequently click Register.
7. Click *Next*. Domoport checks your input and saves the data. You have successfully registered your IC 1 EIB at the Domoport Internet service. Now you can use your main user name and password to access your Domoport main user account.

Domoport top level domains

<http://www.domoport.com> <http://www.domoport.de>

International Germany

English German



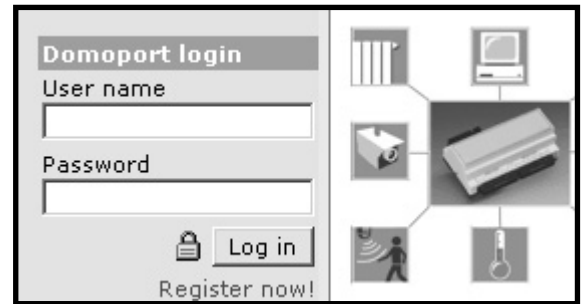
SN and PIN: The SN and PIN is located in the security field on the Domoport registration sheet. The registration sheet is supplied with the IC 1 EIB.

The SN and PIN are only required when the device is registered, thereafter you specify any user name and password for login purposes.

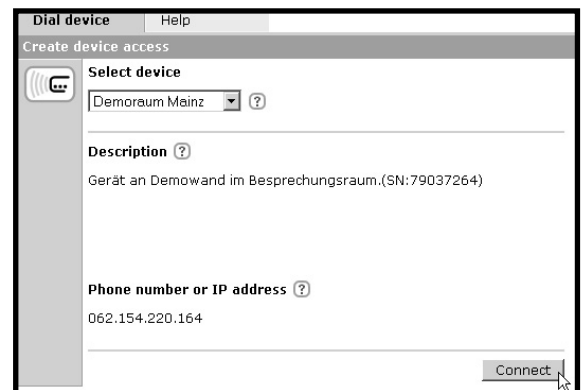


To establish a connection to the IC 1 EIB via the Domoport user account:

1. Establish a connection to the Internet (if no RAS connection is already active).
2. Start the web browser (Microsoft Internet Explorer 5.0 and above, or Netscape Communicator 4.7x and above)
3. In the address box of the web browser, enter one of the URLs that are listed in the "Domoport top level domains" table. You then reach the Domoport portal page.
4. Under *Domoport login*, enter your Domoport user name in the *User name* box.
5. Enter the password for the specified Domoport user name in the *Password* box.
6. Click *Log in*. Domoport opens the *Create device access* window.
7. Click the arrow next to the *Select device* list. Domoport opens the *Select device* list.
8. Click an item in the *Select device* list. Domoport selects the Internet controller and displays its description and telephone number and/or IP.
9. Click *Connect*. Domoport connects you with the selected IC 1 EIB Internet Controller REG-K.



Domoport user data



Establishing access to the device

Integration in a standard network

By configuring an IP address you integrate the IC 1 EIB into your network, or directly into the Internet, if a direct Internet access is available via a router or similar. Furthermore the IP address/classic enables you to easily access all functions of the IC 1 EIB via any network-compatible PC.

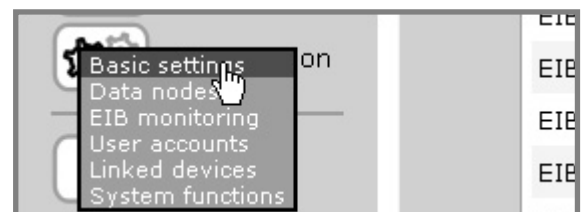
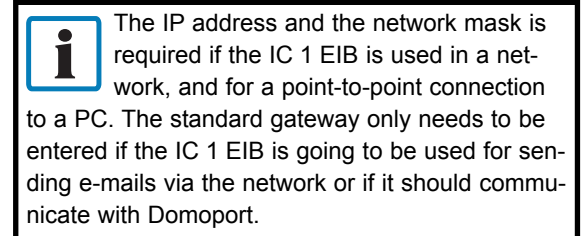
To integrate the IC 1 EIB into a standard network, perform the following steps:

- If the IC 1 EIB is not within the same physical network as the intranet into which it should be integrated (identical subnet masks), connect to the IC 1 EIB via a point-to-point connection or via Domoport.
- If required, change the settings for the IP address, network mask and standard gateway on the IC 1 EIB.



To change the network settings of the IC 1 EIB:

1. Connect to the IC 1 EIB.
2. Click *Configuration* in the navigation bar and select *Basic settings*. The IC 1 EIB opens the *Set local device data* tab.



Menu Configuration ⇒ Basic settings

3. Enter the desired IP address under *Network* in the *IP Address* box (e.g. "192.168.0.207"; Default: 192.168.0.222).
4. In the network mask box, enter the desired network mask (default: 255.255.255.0).
5. Click *OK* and also confirm the next query with *OK*. The IC 1 EIB changes the IP address and is got through with this IP address as from now.



The **IP address** (Internet Protocol Address) is a 4-byte number that uniquely identifies a computer in the Internet or intranet for communication with other computers.

The **network mask** defines the range of IP addresses that are classified as local. IP address that do not fit into this pattern are classified as global and has to be forwarded to the Internet via a gateway computer. This differentiation is made based on a bit-by-bit AND operator between the network mask and the IP address that has to be tested.

Example: A network uses XXX.XXX.XXX.YYY as address pattern, and all computers in the network have the same initial address numbers, in other words only the YYY numbers are different. By using the mask, only the XXX.XXX.XXX segment of the address is compared, the computer-specific YYY is hidden. If there is a difference in the XXX.XXX.XXX segment, the address is considered to be global and the data packets are sent to the gateway. However, if the numbers match, communication with computer YYY is set up within the local network.

The **standard gateway** is a computer with assigned IP address that transport data packets from the local network (LAN) to the Internet, and vice versa.

Device name:	ic1-2
Network	
IP address:	192.168.000.207
Network mask:	255.255.255.000
Standard gateway:	192.168.000.254
Date and time	
Device date [YYYY-MM-DD]:	2002 - 01 - 01

Entering an IP address



Operation in networks with dynamic IP manager (DHCP): Reserve a free

address range for the IC 1 EIB in the DHCP server and set the device IP of the IC 1 EIB within this address range.

Direct dial-in

You can also connect to IC 1 EIB using direct dial-in via modem. In this case, the IC 1 EIB functions as Internet Service Provider (PPP_Server).

How to dial in directly via modem:

Set up the IC 1 EIB as PPP server in the remote communications and VPN settings of your PC. The number to be dialled is the telephone number of the IC 1 EIB; the user name is "PPPAdmin"; the password is the serial number of the IC 1 EIB.



How to create a direct connection via modem:

1. Under Public access to the device in the field Internet Data, select "Direct Dial in" or "Domoport and Direct Dial in".
2. Open your browser and enter the following as IP address "http://10.10.10.10" (or "http://10.10.10.10/Classic", "http://10.10.10.10/PC" or "http://10.10.10.10/PDA"). Then, the homepage will appear for registration.

Device data

2 To enable access to the IC 1 EIB via the Internet, Domoport uses the telephone to initiate the device to connect with the Internet: Domoport “rings” the IC 1 EIB, the device dials into the Internet and identifies itself to Domoport. The phone number of the IC 1 EIB must therefore be registered with Domoport. You also have to enter the phone number of the IC 1 EIB on the device itself if you use the device within a telephone system or if you assign the IC 1 EIB its own MSN. To differentiate between your IC 1 EIB Internet Controller REG-K, give each device an unique name. Additionally you can change the language of the user interface and the system time of the IC 1 EIB.

User interface

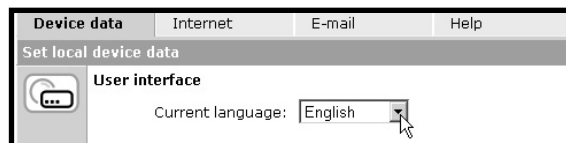
The user interface of the IC 1 EIB is multilingual. You can select your language in the *Basic settings*, under *Device data*. Currently the user interface of the IC 1 EIB has been localized for the following languages:

- German ■ English ■ French
- Italian ■ Dutch ■ Spanish



To set the language of the user interface:

1. Click *Configuration* in the navigation bar and select the menu item *Basic settings*. The IC 1 EIB opens the *Set local device data* tab.
2. Under *User interface*, click the arrow next to the *Current language* list. The IC 1 EIB opens the *Current language* list.
3. In the *Current language* list, click on an item. The IC 1 EIB selects the language.
4. Click *Save* and confirm the subsequent status message with *OK*. The IC 1 EIB changes the current language settings and loads the user interface in the new language.



Setting the user interface language

Identification

You have to enter the telephone number at which the IC 1 EIB can be accessed into the device account on Domoport. The data needs to be entered on the device itself if you use the device within a telephone system or assign the IC 1 EIB its own MSN (in the case of ISDN devices). Enter the telephone number complete with dial code, or in the case of ISDN, enter the entire MSN.



Multiple Subscriber Numbering (MSN):

An MSN does not consist of the entire telephone number. It consists of as many numbers from the right as is needed to differentiate between the various numbers assigned to the telephone line. The telephone is usually entered without dial code.

If you do not assign an MSN for your IC 1 EIB, the device will react to each incoming call and automatically log on to the Internet.

For further identification of the IC 1 EIB, enter a device name in the basic settings. The device name is always displayed at the top of the user interface.



To enter the telephone number and the device name of the IC 1 EIB:

1. Click *Configuration* in the navigation bar and select *Basic settings*. The IC 1 EIB opens the *Set local device data* tab.
2. Enter the phone number of the IC 1 EIB under *Identification*, in the *Device phone number* box.
3. In the *Device Name* box, enter a name for the IC 1 EIB.
4. Click *Save*. The IC 1 EIB saves the telephone number and the device name.

Physical EIB device address

You have to assign a physical EIB device address to integrate the IC 1 EIB in the EIB. The physical address is the distinct name of the IC 1 EIB in the INSTABUS EIB. It will be input in the notation »Area.Line.Device« (p.a. »1.3.21«).



To enter the physical EIB device address:

1. Click *Configuration* in the navigation bar and select *Basic settings*. The IC 1 EIB opens the *Set local device data* tab.
2. Input the physical EIB address in the field *Physical EIB addresses*.
3. Click *Save*. The IC 1 EIB saves the telephone number and device name.



Operation with a dedicated Internet

line: If you operate the IC 1 EIB on a dedicated line, enter the IP address of the IC 1 EIB, instead of its telephone number, on Domoport. No modem is required to directly operate the device on a dedicated Internet line. Additionally you have to enter the standard gateway and the valid DNS server on the IC 1 EIB. You can get all data needed for the settings from your ISP.

Date and time

You have to set the system time of the IC 1 EIB. This is necessary for the time-dependent functions of the device to work correctly. If the *Fetch date and time from www.domoport.com* check box has been selected, the IC 1 EIB will compare its system time with the Domoport time server each time they are connected online.



To set the system time of the IC 1 EIB:

1. Click *Configuration* in the navigation bar and select *Basic settings*. The IC 1 EIB opens the *Set local device data* tab.
2. Use the list boxes under *Date and Time* to set the device date, device time and the time zone.
Note: If the *Fetch date and time from www.domoport.com* check box has been selected, the system time is automatically set in accordance with the time zone each time the IC 1 EIB goes online.
Attention: The IC 1 EIB has to set up an Internet connection (Domoport access or e-mailing) to get the system time from Domoport.
3. Click *Save*. The IC 1 EIB saves the telephone number and device name.

Setting the system time



Time synchronization of linked devices:

You can link up to 32 IC 1 EIB Internet Controllers REG-K by means of the *Configuration* ⇒ *Linked devices* menu. All linked devices synchronize their internal device times: For example, if the gateway device gets its time from Domoport, all other backend devices synchronize their time setting to the settings on the gateway device.

Internet

3 The IC 1 EIB sets up an online connection to the Internet when accessed via Domoport, for e-mailing and for updating the device software. For dialing into the Internet, the IC 1 EIB uses the dial-up data that you have configured under *Basic settings*. At device delivery, a default Internet Service Provider (ISP) has been preset. You can change it at any time.

Internet access per modem

For the IC 1 EIB to set up an Internet connection, it has to dial into the Internet via an Internet Service Provider (ISP). You have to be registered at an ISP (Internet-By-Call providers are exceptions to this rule, refer to the "Internet-By-Call Providers" info box) and know the dial-up number of the provider, as well as your user name and password of your Internet account. To set up your ISP on the IC 1 EIB, go to *Configuration* ⇒ *Basic settings* ⇒ *Internet*. You can use the preset provider, *msn* (Microsoft Network; Internet-By-Call provider), or enter a new ISP (for example an economic Internet-By-Call provider or the same provider that you use for your PC).

Timeout (Auto hangup): The *Timeout (Auto hangup)* is the time that the IC 1 EIB stays online after the last user activity. After the timeout duration has expired, the IC 1 EIB disconnects the online connection.

Use internal modem: With the *Use internal modem* option, you instruct the IC 1 EIB to set up each online connection by using the integrated modem (with ISDN or GSM adapter respectively). If the Internet connection should be established via a gateway (for example a dedicated line in a company network), clear the *Use internal modem* check box.



ISP: Abbreviation for Internet Service Provider. A company that sells general Internet services. Some ISPs are big national or international companies that offer Internet access at various locations. There are also ISPs that only offer their services in some cities or areas.

Internet-By-Call Providers are ISPs that do not require you to take on any contractual obligations, such as a minimum contract term, basic fees, notice period, etc. The online charges are usually invoiced on the ordinary telephone bill. You can find examples of Internet-By-Call providers in our FAQ list.



To set up the Internet access of the IC 1 EIB per modem:

1. Click *Configuration* in the navigation bar and select *Basic settings*. The IC 1 EIB opens the *Set local device data* tab.
2. Click the *Internet* tab heading. The IC 1 EIB opens the *Set up internet data* tab.
3. Under *Internet access via modem*, enter the telephone number, your user name and the password of your Internet account. Your ISP can supply you with the access data for your Internet account.

Note: If you use the IC 1 EIB in a telephone system (private branch exchange), you might have to enter an external line code (for example "0..") before the telephone number of the ISP.

Internet access via modem

Phone number:	0192658
User name:	msn
Password:	*****
Timeout (Auto hangup):	5 minutes
☒ Use internal modem	

Setting up the ISP dial-up data

4. Click on the arrow next to the *Timeout (Auto hangup)* list. The IC 1 EIB expands the *Timeout (Auto hangup)* list.
5. Select a timeout duration. The IC 1 EIB ends an online connection if the timeout duration has expired since the last user activity, in case the connection was not ended by clicking *Log off*.
6. Select the *Use internal modem* check box so that the IC 1 EIB sets up each online connection via the integrated modem.

Or:

Clear the *Use internal modem* check box so that the IC 1 EIB sets up online connections via the standard gateway.

Assigning name servers

The Internet internally works with IP addresses. To enable the Internet user to enter a meaningful URL (Internet address) such as »http://www.domoport.com« or »http://www.merten.com« into the address bar of the Web browser, these URLs have to be "translated" to IP addresses. This translation is done by the DNS server (DomainNameService Server).

Default nameserver: Under *Default nameserver*, enter the IP address of a DNS server in the *DNS server 1* and *DNS server 2* boxes respectively. Usually the ISP will supply their valid DNS servers. Enter these servers in the boxes. If the provider only supplies one DNS server, the second box must not be complete. Many ISPs do not provide the IP addresses of DNS servers, or work with an automatic DNS assignment. In this case, leave the two boxes.

**To change the default DNS server on the IC 1 EIB:**

1. Click *Configuration* in the navigation bar and select *Basic settings*. The IC 1 EIB opens the *Set local device data* tab.
2. Click the *Internet* tab heading. The IC 1 EIB opens the *Set up internet data* tab.
3. Change the IP addresses in the *DNS server 1* and *DNS server 2* boxes under *Default nameserver*.
4. Click *Save*. The IC 1 EIB saves the IP addresses for the default DNS servers.

**Operating the IC 1 EIB on a DSL broadband line:**

Operating the IC 1 EIB on a DSL line requires the Internet access on the IC 1 EIB to be specially configured. In addition to a DSL line, you also need a DSL router. The WAN connection to the ISP domain must be set up on a DSL router. Configure the IC 1 EIB for DSL operation as follows:

- Standard gateway: IP address of the DSL router
- Using an internal modem: Deactivate_ (However, for DSL operation the IC 1 EIB needs to be equipped with a modem, so that Domoport can "ring" the device, even if the IC 1 EIB connects with the Internet via the DSL broadband line.)
- ISP dial-up data is not required.
- The IC 1 EIB does not accept dynamic IP address assignments (DHCP). If your DSL router has been configured as DHCP server, reserve a vacant IP address range and make sure the IP address of the IC 1 EIB is within this range.
- On the DSL router, the ports 80, 81 and 5000 have to be forwarded to the IP address of the IC 1 EIB ("Port forwarding").



A DNS server is a computer that can answer domain name service queries (DNS queries). The DNS server administrates URLs and the IP addresses that are assigned to them. For example, if the URL http://www.merten.de is presented to a DNS server, it replies with the IP address of Merten's website.

Default nameserverDNS server 1: DNS server 2: *Changing the DNS server*

SNMP traps

The IC 1 offers the option of sending the time of the IC 1 startup and unsuccessful login to a so-called trap host (error storage host).



How to set up a trap host address:

1. In the navigation list, click Configuration and choose the menu item Basic settings. The IC 1 EIB opens the tab Set local device data.
2. Click the Internet tab. The IC 1 EIB opens the tab Internet Data.
3. Under IP address trap host: enter the address of the trap host.

Note: Further traps (error messages) can be sent. To do this, one (or more than one) SNMP trap host addresses ending in "@snmp" (e.g. 192.168.0.100@snmp) are entered as the e-mail address for the e-mail receiver. After allocation to a message program, a trap with the mail text entered will be sent to the SNMP trap host whenever this message program is activated.

E-mail

4 The Internet offers special services for the various demands it has to meet. The most commonly known service is the WWW (**W**orld **W**ide **W**eb). Other services are for example FTP (**F**ile **T**ransfer **P**rotocol) for copying large files via the Internet, or the two e-mail services called POP (**P**ost **O**ffice **P**rotocol), for receiving e-mails and SMTP (**S**imple **M**ail **T**ransfer **P**rotocol) for sending e-mails.

If the IC 1 EIB should send e-mails, you need to enter an SMTP server and, if required, a POP3 authentication. The IC 1 EIB sends all outgoing e-mails via the URL that was set for the SMTP server.

Server for e-mail deliveries

E-mails are sent via SMTP servers. Most ISPs also offer own SMTP servers. Enter the URL or IP address supplied by your ISP into the External server for e-mail deliveries box. The SMTP server need not necessarily be the server of your ISP. You can also use other SMTP servers, such as the ones offered by free-mail providers. Well-known mail servers can be found in the "E-mail services" info box. Alternatively you can also use Domoport's e-mail service (MoD: Mail over Domoport). When using MoD, you can specify - on the IC 1 EIB - whether it should send e-mails alternatively, exclusively or additionally over the Domoport SMTP server.



To set up e-mail transmission over Domoport:

1. Click *Configuration* in the navigation bar and select *Basic settings*. The IC 1 EIB opens the *Set local device data* tab.
2. Click the E-mail tab. The IC 1 EIB opens the tab *Set up e-mail dispatch*.
3. Click the arrow in the list *Set up e-mail dispatch*. The IC 1 EIB opens the list with the following entries:
 - [Do not use]
 - Use whenever external mail server fails
 - Do only send via Domoport
 - Send every mail twice (external and Domoport)

In the basic settings is the entry *[Do not use]* selected. Click the entry in the list *Sending e-mail via Domoport*. The IC 1 EIB sends e-mails accordant your selection after saving the site.



To set up the SMTP server on the IC 1 EIB:

1. Enter the URL or IP address of a valid SMTP server in the *SMTP server (URL or IP)* box under *Server for e-mail deliveries*.

External server for e-mail deliveries

SMTP server (URL or IP):

Sender name:

Setting up the SMTP server

- In the *Sender name* box, enter the e-mail sender address of the account via which you wish to send the e-mail.

Note: Some SMTP server also allows you to enter names that are not the e-mail sender address. In this case you can enter the device name of the IC 1 EIB, for example.

- Click **Save**. The IC 1 EIB saves the e-mail settings.

POP server (authentication)

Some ISPs demand a POP authentication for e-mail dispatch. Here you prove your authenticity as a registered user of the mail service by entering your POP3 user data (user name and password for your mail account). Thus the e-mail providers prevent users from sending anonymous e-mails (for example for spreading viruses) or SPAM mails (unsolicited e-mails that are send to many receivers).



To set up POP server authentication on the IC 1 EIB for a set SMTP server:

- Click **Configuration** in the navigation bar and select **Basic settings**. The IC 1 EIB opens the **Set local device data** tab.
- Click on the **E-mail** tab heading. The IC 1 EIB opens the **Set up e-mail dispatch** tab.
- Under **POP server (authentication)**, select the **POP authentication required** check box.
- Under **POP server (authentication)**, enter the access data of your mail account.
- Click **Save**. The IC 1 EIB saves the e-mail settings.



E-mail gateway: If you are using several IC 1 EIB devices in an Ethernet, only one device needs to have an Internet connection. All other devices send e-mails via the device that is connected to the Internet. For this purpose the IP address of the IC 1 EIB that has an Internet connection need to be entered as SMTP server (no POP authentication) on all other devices in the Ethernet.

External POP server (authentication)

☒ POP authentication required

POP server (URL or IP):

User name:

Password:

Setting up POP authentication



Examples for e-mail providers: The following list contains examples of e-mail providers that have been tested on the IC 1 EIB:

E-mail provider	URL	SMTP server	POP server	POP auth.
WEB.de	http://web.de	smtp.web.de	pop3.web.de	yes
t-online	http://www.t-online.de	mailto.t-online.de	use t-online access data for authentication; only for t-online accounts	
Strato	http://www.strato.de	post.strato.de	post.strato.de	yes
freenet	http://www.freenet.de	mx.freenet.de	pop3.freenet.de	yes
gmx	http://www.gmx.de	mail.gmx.net	pop.gmx.net	yes
directBox	http://www.direktbox.com	smtp.directbox.com	pop3.directbox.com	yes

Data objects

- 5** The IC 1 EIB can manage a max. of 256 EIB data objects and 32 variables. You can give the EIB data objects and variables any name, hide or show them on your device home page, group them transparently, change their order or arrange them.

EIB data objects

The IC 1 EIB can send bus telegrams to up to 256 EIB group addresses. You can give the data objects any name and either hide or show them on the device home page. For EIB communication, the IC 1 EIB uses the "Write", "Read" and "Answer" group telegrams. Each EIB group address is assigned a corresponding EIS data type (EIB Interworking Standard). To operate and visualize an EIB group address, the device home page of the IC 1 EIB can either display the respective value together with a button, only the value or only the button. You can specify a switching value and can assign a unit of measurement for each group address to be displayed on the home page. By means of Init you instruct the IC 1 EIB to read out the value of the respective group address when the device is started.

To configure the EIB data objects, proceed as follows:

1. In the navigation bar, click *Configuration* and select *Data objects*. The IC 1 EIB opens the *Configuration of EIB data objects* tab.

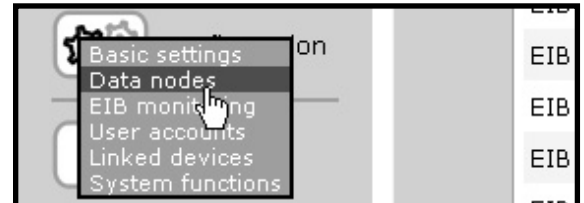
In the *EIB objects* list, select the data objects that you wish to configure.

Click on the arrow of the EIB objects list. The IC 1 EIB opens the list, which contains the following entries:

- 1-32 ■ 129-160
- 33-64 ■ 161-192
- 65-96 ■ 193-224
- 97-128 ■ 225-256

Click an entry in the EIB objects list. The IC 1 EIB displays the selected data objects on the page.

2. **Show:** On the device home page, the IC 1 EIB displays all EIB data objects for which the *Show* check box has been selected. By default no *Show* check box has been selected, the IC 1 EIB does not display any data objects on the device home page.



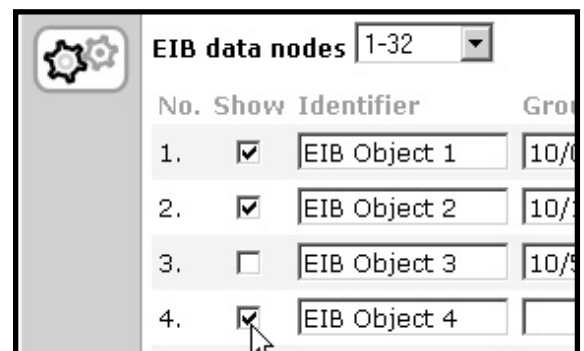
Menu Configuration ⇒ In-/Outputs



Naming of datapoints in connection with merten@home:

If merten@home is configured on this IC1, the name of some datapoints will contain an underscore and a number at the end (for example: "Light Living room_12"). This underscore and the number must not be changed! The number defines, amongst other things, the icon for the representation in merten@home.

Changes to these datapoints may only be made in the merten@home configurator.



Clearing the *Show* check box

Select the *Show* check box. After the page has been saved, the IC 1 EIB displays the corresponding data object on the device home page.

Or:

Clear the *Show* check box. After the page has been saved, the IC 1 EIB deletes the corresponding data object from the device home page.

3. **Identifier:** By default the data objects are not named.

Click in the *Identifier* box and enter an identifier for the data object or modify the current identifier.

Note: Refer to the "Input in text boxes" info box.

4. **Group address(es):** The EIB distinguishes between the physical address and the group address. The physical address is the unique name of the bus device and follows the notation "Area.Line.Device" (for example "1.3.21"). The group address specifies the assignments for the communication between the bus devices. The IC 1 EIB always addresses a bus device by means of its group address(es). It is either denoted as "Main group/Subgroup" (for example "1/17") or "Main group/Middle group/Subgroup" (for example "1/3/21"). Additionally you can specify 3 link addresses. The link addresses are additionally used to update the values of the object (object listens to several addresses). The following notation is used to specify link addresses: "Main address; link address(es)" (for example "1/2/3 1/2/4 1/2/5;").

Click in the *Group address(es)* box and enter a group address for the data object or modify a current group address.

Note: Refer to the "Input in text boxes" info box.

5. **Data type:** The Data type list is a "drop-down list". Click the arrow to expand the list. By default all data types are configured as EIS1 (Switching).

Click the arrow of the *Data type*. list box. This expands the list. The entries in the Data type list are explained in the "EIS data types" table.

Click on an entry in the *Data type* list. The IC 1 EIB configures the data object depending on your selection.

EIS data types

EIS - EIB function	Description, application
EIS1 (Switching) etc.: On/Off.	Switching functions for lights, boiler
EIS2 (Dimming - value)	Dimmer functions: On/Off, brighter, darker, set to fixed value.
EIS3 (Time)	Seconds, minutes, hours, day of the week
EIS4 (Date)	Day, month, year



Making entries in text boxes: A single click positions the cursor in the box, text will be inserted at this point, a double-click selects the clicked word and three clicks select the entire content of the box. All selected characters or words are deleted by the IC 1 EIB when a new entry is made.

No.	Show	Identifier	Group address(es)
33.	☒	EIB Object 1	10/0/1
34.	☒	EIB Object 2	10/1/1 10/1/2 10/1/3
35.	☒	EIB Object 3	10/2/1

Input of the EIB group addresses



The IC 1 EIB enables you to assign addresses to up to 256 EIB objects. The EIB objects can be configured by using one of the following two methods:

1. **Manually entering** the group addresses on the Configuration of EIB data objects tab (to be found under *Configuration* ⇒ *Data objects*).

2. **EIB import tool:** Export from the ETS by means of a PC software. The EIB import tool utilizes the export functions of the ETS. In the EIB import tool you can select address. These can then subsequently be transferred to the IC 1 EIB.

EIS5 (Value)	16-bit floating point number for values such as temperature, brightness, flow rates etc.
EIS6 (Scaling 0-100%)	8-bit value between 0% and 100%
EIS6 (Scaling 0-360°)	8-bit value between 0 and 360°
EIS7 (Drive Control)	Motor control units: stop, up, down, step
EIS8 (Priority - position) values: On/Off	EIS8 subfunction for switching
EIS8 (Priority - control)	EIS8 subfunction: priority switch for "Priority position": "always on" or "always off"; overwrites "priority position"
EIS9 (Float value)	32-bit floating point number for all physical values (structured in accordance with IEEE 754)
EIS10 (16 bit counter)	16-bit signed integer for counter values
EIS10 (16 bit counter)	16-bit unsigned integer for counter values
EIS11 (32 bit counter)	32-bit signed integer for counter values
EIS11 (32 bit counter)	32-bit unsigned integer for counter values
EIS13 (ASCII character)	8-bit ASCII character
EIS14 (8 bit counter)	8-bit signed integer for counter values
EIS14 (8 bit counter)	8-bit unsigned integer for counter values

6. **Operation:** In the *Operation* list, you can select how the IC 1 EIB displays the data on the device home page. The *Operation* list is a "drop-down list". Click the arrow in the *Operation* list. This expands the list. The *Operation* list contains the following entries:

- Value and button
- Value only
- Button only

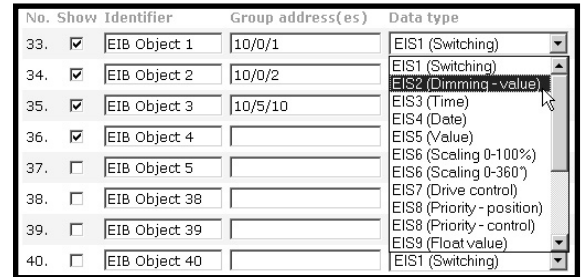
By default the Value only option is selected.

In the *Operation* list, click an entry. The IC 1 EIB adapts the appearance of the data object in accordance with your selection.

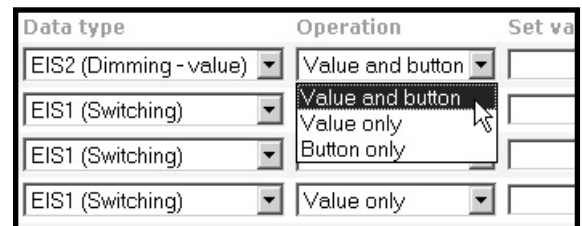
7. **Set value:** In the *Set value* box, you can assign a set value to the button of the corresponding data object. You can use the *Operation* list to specify that a button should be displayed for the data object (see point 6).

Note: If you do not enter a value in the Set value input box, the IC 1 EIB will display a box labeled Value on the device home page. Here you enter the appropriate set value. Use the *Set* button to set the entered value.

Click in the *Set value* box and enter a preset for the respective data object.



Setting up the EID data type



Setting up the operation

8. **Unit:** Under *Unit* you can enter a unit to be displayed next to the respective data object on the device home page.

Click in the *Unit* box and enter the measuring unit for the respective data object.

9. **Init:** When the device is booted, the IC 1 EIB reads out all data objects for which the *Init* check box has been activated. This ensures that the IC 1 EIB displays the correct values on the device home page directly after the device has been booted.

By default none of the *Init* check boxes is selected; the IC 1 EIB does not read out any data objects.

10. Click **Save**. The IC 1 EIB adopts and saves all the settings on the page.

Variables

6 In programming, variables refer to a reserved storage space for values. The contents of the variables can be modified while the program is being executed. The IC 1 EIB administrates 32 variables. Within the device, variables fulfil the same function as the EIB data nodes: They can be read out or set in the same way through the use of function logic, for example in the timer or e-mailer.

Device variables

The device variables of the IC 1 EIB save Boolean and numeric values. You can therefore configure the variables for recording and processing of switch states or numeric values. Depending on how you want to implement the respective variable, you can comfortably select a configuration by using a “drop-down list” (refer to the “Variable types” info box).

On the device homepage it is possible to display a *Switch* button for ‘Switch state’ variables (Boolean variables), for example as e-mail trigger or as a switch for a macro. If you have set a numeric variable (selection: *Numeric value* in the *Use*) list, you can add a button as reset or an input box to enter a setting for the variable.

In the *Unit* box, you can assign the measuring unit to be displayed for each variable on the homepage.



To configure device variables:

1. Click *Configuration* in the navigation bar and select the menu item *Data nodes*. The IC 1 EIB opens the *Configuration of EIB data objects* tab.
 2. Click the *Variables* tab heading. The IC 1 EIB opens the *Define programmable variables* tab.
 3. **Show:** On the homepage, the IC 1 EIB displays all variables for which the *Show* check box has been selected. As default setting all *Show* check boxes are activated; the IC 1 EIB shows the variables 1 to 5 on the device homepage.
- Select the *Show* check box. The IC 1 EIB shows the corresponding variable on the device homepage after the settings on this page has been saved.
- Or:**
- Clear the *Show* check box. The IC 1 EIB removes the corresponding variable from the device homepage after the settings on this page has been saved.
4. **Identifier:** In the default settings, the variables are named *Variable 01* to *Variable 32*.

No.	Show	Identifier	Use	Button	Unit	Initial values
1.	☒	Order Oil	Switch state	Do not display		
2.	☒	Limit 1	Numeric value	Show 'Set'	°C	5
3.	☒	Limit 2	Numeric value	Show 'Set'	°C	30
4.	☒	Temperature ad	Switch state	Do not display		
5.	☐	Variable 5	Numeric value	Show 'Set'		

Example: Configuration of variables

Click in the *Identifier* box and delete the default name.

Note: Refer to the “Input in text boxes” info box.

Enter a new identifier for the variable.

5. **Use:** The *Use* list is a “drop-down list”. Click the arrow to expand the list. In the default settings, all variables are configured as the *Switch state* type (Boolean variable).

Click on the arrow of the *Use* list box. The IC 1 EIB expands the list. The *Use* list contains the following items:

- Switch state
- Numeric value

Click an item in the *Use* list. The IC 1 EIB sets the variable to a Boolean variable (selection: *Switch state*) or numeric variable (selection *Numeric value*).

Note: For further information on the variable types, refer to the “Variable type” info box.

6. **Button:** You can add a button or an input box for each variable to the device homepage. You can configure a button by using the *Button* list.

Click an item in the Button list:

- *Do not display* deletes the button for the corresponding variable after the page has been saved.
- *Show ‘Switch’* (default setting for the *Switch state* variable) creates a button for the *Switch state* variable after the page has been saved.
- In the case of *Numeric value* variables, the *Show ‘Set’* option can be used to create an input box for setting the numeric value. It is created after the page is saved.
- In the case of *Numeric value* variables, the *Show ‘Reset’* option can be used to create a reset button. It is created after the page is saved.

7. **Unit:** You can enter a unit in the boxes in the *Unit* column. This unit will be used for displaying the values of the respective variable.

Click in the *Unit* box and enter the measuring unit for the variable.

8. **Initial values:** Under *Initial values* you can enter a preset. When the device is started up, the IC 1 EIB assigns the specified value to the respective variable. By specifying a variable for use at device startup, possibly instable conditions can be avoided.

9. Click *Save*. The IC 1 EIB adopts and saves all the settings on the page.



Variable types: The IC 1 EIB administers Boolean and numeric variables. The following list displays the possible uses of the two variable types in combination with the IC 1 EIB:

Use	Variable type
Switch state	Boolean variable: Logical variable that can only have one of two values: “True” =1 or “False” =0. The IC 1 EIB uses a green indicator light on the device homepage to display the value of the variable: Value 0: Light off Value 1: Light on
Numeric value	Numeric variable for floating point number (double float IEEE) The IC 1 EIB displays the respective variable value on the device homepage.

Order

7 The IC 1 EIB helps you design your device homepage to be individual and user-friendly. The position of each display element can be shifted vertically. You can structure the homepage with section separators to make it user-friendly. Section separators function as headers for a group of display elements. You can add, rename or delete section separators.

Section separators

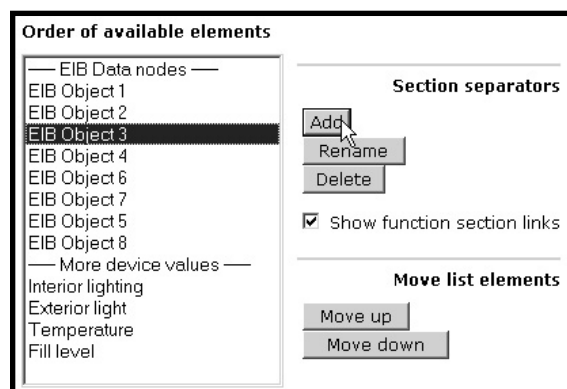
You can use section separators to group and divide the elements on the device homepage. Section separators are horizontal lines with a name below the line. You can add, rename and delete section separators. Additionally you can add links to the section separators to the top of the homepage.

**To add section separators:**

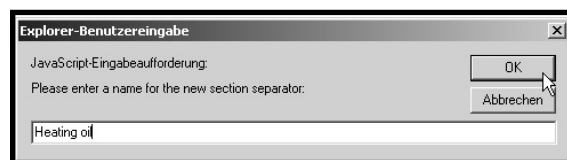
1. Click *Configuration* ⇒ *In-/Outputs* in the navigation bar. IC 1 EIB opens the *Configuration of physical device connectors* tab.
2. Click the *Order* tab heading. IC 1 EIB opens the *Set homepage appearance* tab.
3. Select a homepage element from the *Order of available elements* list.
4. Under *Section separators*, click *Add*. The IC 1 EIB opens a prompt window.
5. In the text box of the prompt window, enter a name for the new section separator and confirm by clicking *OK*. The IC 1 EIB inserts the new section separator, with its name, above the selected element in the list.
Note: The IC 1 EIB always adds section separator above the selected list element.
6. Click *Save*. The IC 1 EIB now displays the new section separator on the device homepage.

**To rename the section separator:**

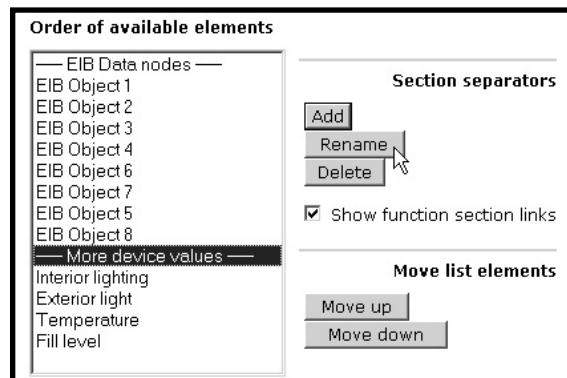
1. Select a *section separator* from the *Order of available elements* list.
2. Under *Section separators*, click *Rename*. The IC 1 EIB opens a prompt window.
3. In the text box of the prompt window, enter a new name for the selected section separator and confirm by clicking *OK*. The IC 1 EIB changes the name of the selected section separator.
4. Click *Save*. The IC 1 EIB renames the section separator.



Adding section separators



Naming section separators

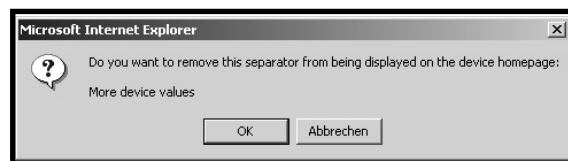


Renaming section separators



To delete section separators:

1. Select a section separator from the *Order of available elements* list.
2. Under *Section separators*, click *Delete*. The IC 1 EIB shows the security query *Do you want to delete this section separator from the homepage display?*.
3. Confirm the security query with *OK*. The IC 1 EIB deletes the selected section separator from the *Order of available elements* list.
4. Click *Save*. The IC 1 EIB adopts and saves all the settings on the page.



Confirming the safety query for deletion



To display links to the sections:

The 'Show function section links' check box inserts hyperlinks to each section separator at the top of the homepage. If you click a hyperlink, the IC 1 EIB displays the corresponding section of the device homepage.

Clear the *Show function section links* check box. The IC 1 EIB deletes the hyperlinks to the section separators.

Or:

Select the *Show function section links* check box. The IC 1 EIB shows the hyperlinks to the section separators on the device homepage.

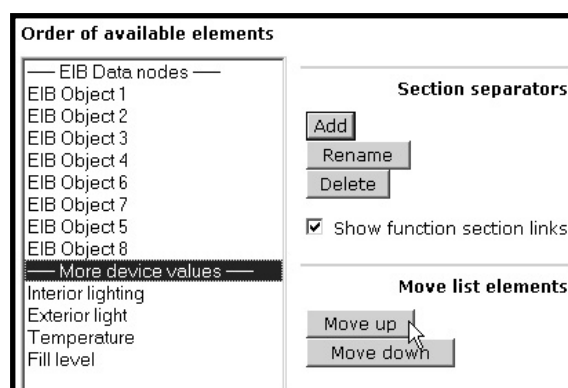
Shifting list elements

You can shift all elements of the device homepage vertically to group and order them.



To shift the list elements:

1. Select an element in the *Order of available elements* list.
2. Under *Move list elements*, click *Move up*. The IC 1 EIB moves the selected element one position up within the *Order of available elements* list.
Note: The *Move down* button moves an element one position down in the list. List elements can only be moved as far as the first or the last position within the list. You can press and hold the Shift key to select several elements. These can then be moved together.
19. Click *Save*. The IC 1 EIB adopts and saves all the settings on the page.



Moving section separators

EIB monitoring

 The IC 1 EIB can monitor the "life signs" of up to 256 EIB devices. To do so, the IC 1 EIB sends a query to the physical addresses of the EIB devices and evaluates the answer telegrams. The IC 1 EIB writes the number of defective devices into a variable that can be user-defined.

Monitoring

You can set up the monitoring functions for the EIB on the Monitor EIB devices physically tab. The IC 1 EIB monitors the EIB devices by sending a query telegram to the physical address of an EIB device every 30 seconds. It therefore takes approx. 2 hours to test 256 devices. Then the test starts anew. The devices are queried in accordance with the order in the list. You can select which devices should be tested. The IC 1 EIB evaluates the answer telegrams from the EIB devices and displays information on when a device has been tested and which status it has. The IC 1 EIB writes the number of defective devices into a variable that can be user-defined.



To configure the physical monitoring of the EIB devices:

1. In the navigation bar, click *Configuration è EIB monitoring*. The IC 1 EIB opens the *Monitor EIB devices physically* tab.
2. **Output of control information:** The IC 1 EIB writes the number of defective devices into a variable that you can select at Alarm variable.

The Alarm variable list is a "drop-down list". Click the arrow to expand the list. By default no variable is defined for the number of defective devices.

In the *Alarm variable* list, click on a free variable. The IC 1 EIB writes the number of defective devices to the selected variable.

3. **Configuration and state:** In the *Configuration and state* section of the window you can determine which EIB devices should be monitored and what their current states are.

Active: The IC 1 EIB monitors all EIB devices for which the *Active* check box have been selected. All *Active* check boxes are activated by default.

Select the *Active* check box. The IC 1 EIB monitors the corresponding EIB device.

or

clear the *Active* check box. The IC 1 EIB does not monitor the corresponding EIB device.

Address: In the *Address* column, you enter the physical address of the respective EIB device, using the following notation: [Area.Line.Device]. To query the EIB device, the physical address is required.

Checked: In the *Checked* column, the IC 1 EIB displays the time at which the device was last checked.

State: Under *State*, the IC 1 EIB displays the inspection state of the corresponding EIB device as follows:

State display in the EIB monitoring

Display		Device status
Grey LED		Device has not been tested yet.
Green LED		The device is operative.
Red LED		The device is not operative.

User accounts

9 The IC 1 EIB administrates up to 32 user accounts for local access in the LAN. You can assign an access level for each user account. There are three possible access levels that you can assign to a user: administrator, operator, and viewer. A user account with administrator rights has full access to the device, incl. all functions for setting up user accounts and configuring the default settings. You can grant operators and viewers access to the same device areas - the only exception is the default configuration. The difference between the access rights for operators and for viewers are as follows: Only operators may actively influence the device configurations and, for example, perform switch functions on the homepage or change timer programs. Viewers, on the other hand, can call up the current status of areas to which they have access to “view” the data, but cannot switch or change anything. This limitation is visible from the fact that there are no function buttons on the user interface.

User

You can use the *Set up accounts for LAN access* tab to set up user accounts on the IC 1 EIB. User accounts can be created (saved), changed, locked and deleted. Each user account is created with the following data:

- User name
- Password
- Access level

Optionally you can save a description for the user account.



To set up user accounts:

1. In the navigation bar, click *Configuration* ⇒ *User accounts*. The IC 1 EIB opens the *Set up accounts for LAN access* tab.
2. **Select user:** The *Select user* list is a “drop-down list”. Click the arrow to expand the list. In the default configuration, only the *Admin* user exists (refer to the “*Admin* user account” info box). All other spaces for saving user accounts are still empty.

In the *Select user* list, click an empty item. The IC 1 EIB displays the following input boxes for user data on the page:

- User name
- Access right
- Password and Repeat
- Description

Or:

In the *Select user* list, select an existing user account. The IC 1 EIB displays the user data of the selected account on the page.



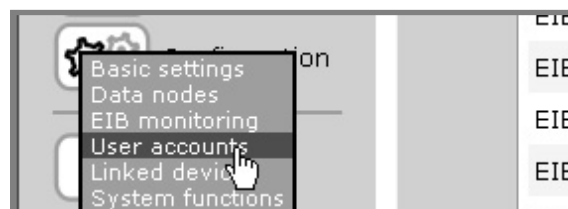
Domoport user accounts and local

user accounts: The IC 1 EIB distinguishes between the following types of user accounts:

- Domoport user accounts (on the Domoport server) for access via the Internet portal <http://www.domoport.com> and <http://www.domoport.de>
- Local user accounts on the IC 1 EIB for LAN access via a local network

The Domoport user administration is not linked in any way to the local user administration:

If a user accesses the device via Internet link, the user rights that were set for his user account on Domoport also apply on the IC 1 EIB; if a user accesses IC 1 EIB via the local Ethernet, the user rights that were set in his local user account on the device apply.



Menu: Configuration ⇒ User accounts

3. **User name:** Click in the 'User name' box and enter a name for the new user account, or modify the existing user name.
Note: Refer to the "Admin user account" info box.

4. **Access right:** Under 'Access right' you can assign the user right for the selected user account. You can specify the respective rights on the *Set access levels* tab (under *Configuration* ⇒ *User accounts* ⇒ *Access levels*).
The *Access right* list is a "drop-down list". Click the arrow to expand the list. In the default configuration, the respective user account is locked.

Click the arrow of the *Access right* list box. The IC 1 EIB expands the list. The *Access right* list contains the following items:

- [Lock account]
- Viewer
- Operator
- Administrator

Click an item in the *Access right* list. The IC 1 EIB assigns the selected user right to the user account or locks the account.

Note: Locked accounts are inactive: It is not possible to use a locked user account to log onto the IC 1 EIB.

5. **Password and Repeat:** In the *Password* box you can enter a password for the new user account or change the existing password. For security reasons, the IC 1 EIB does not display the password while it is entered. If you enter a new password, the IC 1 EIB shows you a series of "*" instead of your password. The IC 1 EIB administrator can modify their passwords at any time.

Click the *Password* box and enter a password for the new user account, or modify the existing password. The password must be between 5 and 25 characters in length. Repeat the entry in the *Repeat* box.

6. **Description:** You can use the *Description* box to enter a short description of the new user account or to modify an existing description. An apt description of the user account enables you to distinguish between the registered IC 1 EIB users more easily.

Click *Description* and enter a description for the new user account, or change the existing description.

7. Click **Save**. The IC 1 EIB adopts and saves all the settings on the page.



Admin user account: To enable LAN access to the IC 1 EIB, a user account with the user name *Admin* has already been set up. When the device is delivered, the relevant password is identical with the serial number of the device. The Admin user account cannot be deleted. This prevents you deleting all LAN user accounts unintentionally.

For security reasons, you cannot delete or modify the user name and the settings of the administrator account. However, you change the preset password at the initial configuration.

The screenshot shows a web-based configuration interface titled "Select user". It contains several input fields and a dropdown menu. The "User name" field contains "Henty Mustermann". The "Password" field is masked with asterisks. The "Access right" dropdown menu is open, showing a list of options: "[Lock account]", "Viewer", "Operator" (which is highlighted with a mouse cursor), and "Administrator". Below these fields is a "Description" text area containing "Operator account". At the bottom right of the form are two buttons: "Delete" and "Save".

Creating user accounts

Access levels

You can specify the various user rights for each access level on the *Access levels* tab. By selecting or clearing check boxes, you can set or delete access rights to the various function areas of the IC 1 EIB. User accounts with administrator rights automatically have access to all function areas, incl. all the configuration pages. This cannot be changed. Likewise the IC 1 EIB's reserved default settings for the *Operator* and *Viewer* levels cannot be changed. The IC 1 EIB displays the respective preset check boxes in "gray".



To define user rights:

1. In the navigation bar, click *Configuration* ⇒ *User accounts*. The IC 1 EIB opens the *Set up accounts for LAN access* tab.
2. Click the *Access levels* tab heading. The IC 1 EIB opens the *Set access levels* tab.
3. Under 'Accessible function areas', select a check box. The IC 1 EIB allows the respective access level to access the activated function area.
Or:
Clear a check box. The IC 1 EIB locks the respective access level from accessing the deactivated function area.
Note: The "gray" check boxes represent the IC 1 EIB's reserved default settings for the respective access level and cannot be clicked.
To reset the access levels to the default configuration of the IC 1 EIB, use the **Default values** button.
4. Click *Save*. The IC 1 EIB adopts and saves all the settings on the page.



The user rights that you specify on the *Access levels* tab also applies to Domoport users with Administrator, Operator or Viewer status.

Accessible function areas

Important note: User accounts with administrator rights (access level 3) have inherent access right to all function sections including the configuration pages!

	Level 3 Administrator	Level 2 Operator	Level 1 Viewer
Homepage	☒	☒	☒
Time	☒	☒	☐
E-Mailer	☒	☒	☐
Video	☒	☒	☒
History	☒	☒	☒
Macros	☒	☐	☐
Device forwarding	☒	☒	☐
Configuration	☒	☐	☐

Default configuration of the user rights

Setting up a guest account

Under *Set up guest access* you can create a guest account for direct access. You can assign any user right to the direct access account. If you have set up a guest account, the IC 1 EIB will display a button labeled *Guest* on the local login page. You can only set up a guest account for the local LAN. A click on the *Guest* button takes the user to the IC 1 EIB, without needing to enter a user name and password. (Alternative: Enter »[IP of the IC 1 EIB]\guest« in the address box of the web browser. On the device, the guest user then has the user right that was assigned to the guest account.



To set up a guest account:

In the *Access without user name and password* list, click the arrow and select a user right. The IC 1 EIB sets up a guest account with the selected user right and adds a button labeled *Guest* to the local login page.

Access security for this device

☒ Gateway access requires local login

Web server with LAN access

No.	Identifier	Local IP address
1.	Webcam 1	192.168.0.201
2.	Webcam 2	192.168.0.204
3.	ic.1-4	192.168.0.209
4.	Webcam 3	192.168.0.200
5.		

Example: Cascading devices

Linked devices

10 Using IC 1 EIB, you can set up Internet access to up to 32 LAN devices with only one telephone connection. The LAN network devices are linked, and need not be permanently connected to the Internet. Web access is established via the Domoport Internet portal. If you are connected with an IC 1 EIB Internet Controller REG-K via your Domoport user account, you can access all networked devices via this device. Linked devices can be other IC 1 EIB Internet Controller REG-K, as well as foreign devices with integrated web servers, such as webcams.

Links

By acting as a gateway, the IC 1 EIB enables you to externally access up to 32 devices in the LAN via a single Internet connection. On Domoport, the web access for the IC 1 EIB is set up. You use the gateway of this device that has an Internet connection to set up access to the downstream linked devices.

There are the following options for accessing downstream linked devices:

Gateway access without local login: On the downstream devices no user account configuration is required, since the rights of the current user (administrator, user or viewer) are forwarded from device to device whenever access takes place.

Gateway access with local login: When accessing a linked device, the user has to enter a user name and password on the login page of the linked device.

Access to foreign devices in the LAN, for example webcams or other controllers with their own web server, can be achieved via the gateway function of the Internet controller.



To link an IC 1 EIB Internet Controller REG-K and other LAN devices:

1. Click *Configuration* in the navigation bar and select the menu item *Linked devices*. The IC 1 EIB opens the *Configure linked devices* tab.
2. Under *Web server with LAN access*, in the *Identifier* box, enter a name for the linked device.
Note: If you have linked devices, the IC 1 EIB adds the *Select device* command to the navigation bar. The IC 1 EIB shows the names of the linked devices as submenu to the *Select device* menu. Click a submenu command to go to the linked device.
3. Enter the local (internal) IP address of the linked device in the *Local IP address* box. You can use the IP address to set up reach-through access to additional devices in the LAN.

Access security for this device
☒ Gateway access requires local login

Web server with LAN access

No.	Identifier	Local IP address
1.	Webcam 1	192.168.0.201
2.	Webcam 2	192.168.0.204
3.	ic.1-4	192.168.0.209
4.	Webcam 3	192.168.0.200
5.		

Example linked devices

- Enter the local (internal) IP address of the linked device in the *Local IP address* box. You can use the IP address to set up reach-through access to additional devices in the LAN.
- Click **Save** and confirm the subsequent query with **OK**. The IC 1 EIB saves the page settings and configures the navigation bar for access to downstream devices.



How to set up access security for a linked device:

- In the navigation bar, click *Configuration* and select *Linked devices*. The IC 1 EIB opens the *Configure linked devices* tab.
- Beneath *Access security for this device*, select the *Gateway access requires local login* check box. The IC 1 EIB activates the gateway access security: If an IC 1 EIB with activated gateway access security is linked up as backend device, all users have to log in with user name and password when they want to access this device.



To access linked devices:

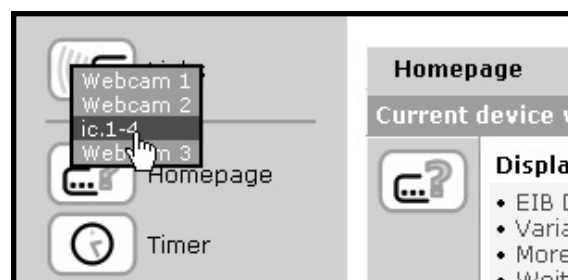
In the navigation bar, click *Select device* and select a linked device from the submenu.

If the linked device is another IC 1 EIB Internet Controller REG-K, the IC 1 EIB opens the device home page of the linked internet controller in the same browser window. You can return from the linked IC 1 EIB to the upstream IC 1 EIB by clicking *Select device* ⇒ *Back*.

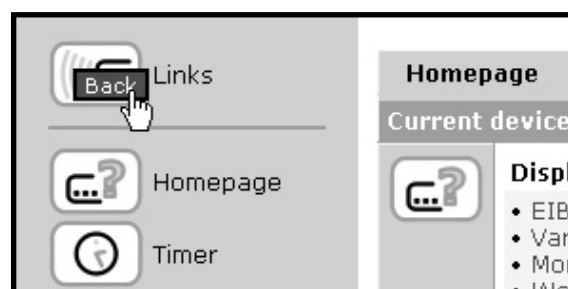
Note: When gateway access security is active, you have to log in at the linked IC 1 EIB by using your user name and password.

Or:

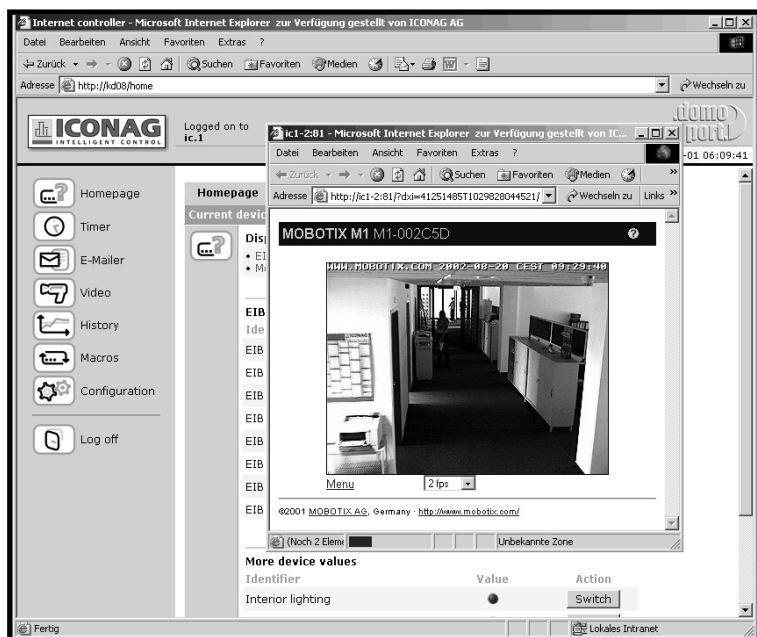
If the linked device is no IC 1 EIB Internet Controller REG-K, the IC 1 EIB opens the home page of the linked device in a new browser window.



Reach-through access to linked devices



Returning to the gateway device



Example: Linked webcam

System functions

11 In the delivery status, the IC 1 EIB Internet Controller REG-K has empty default configurations in all function modules. These ensure that 6 variables shown on the homepage and that no automation functions are performed. If required, you can reset any or all configurations to these default values in the configuration area of the system functions. Some system extensions or settings requires the device to be initialized anew. The restart function enables you to perform a “warm start” via the user interface of the IC 1 EIB. Since the device software of the IC 1 EIB is constantly improved and developed further, you can comfortably check the current software version of your device via the Internet and perform an online update to a new version, if required.

Initial values

On the ‘Restore to initial values’ tab you can reset some or all configurations to the initial settings. All changes that were made in the mean time will be irrevocably lost. You can, for example, use this option when you need to configure the device for a different area of operation and do not want to delete all selected settings manually.



To reset device areas:

1. In the navigation bar, click *Configuration* and select *System functions*. The IC 1 EIB opens the *Restore to initial values* tab.
2. Under ‘Sections to reset’, select the IC 1 EIB system sections that you would like to reset. You can reset the following system sections:
 - Configuration of EIB data objects
Configuration of programmable variables
Appearance of homepage
 - Monitoring of physical EIB devices
 - Timer programs
 - Settings of e-mailer and message chain
 - Configuration of video sources
 - Creation of history data
 - User defined macros
 - Local user accounts including “Admin” standard account
 - Linked devices
 - Base settings without network
 - Network settings
 - Select all

Sections to reset

- ☐ Configuration of EIB data objects
Configuration of programmable variables
Appearance of homepage
- ☐ Monitoring of physical EIB devices
- ☐ Timer programs
- ☐ Settings of e-mailer and message chain
- ☐ Configuration of video sources
- ☐ Creation of history data
- ☐ User defined macros
- ☐ Local user accounts including ‘Admin’ standard account
- ☐ Linked devices
- ☐ Base settings without network
- ☐ Network settings
- ☐ Select all

Reset

Resetting device areas

Under *Sections to reset*, select one or several check boxes. The IC 1 EIB selects the activated system section for resetting. The IC 1 EIB resets the selected system section after you click the *Reset* button.

Or:

Clear one or more check boxes or leave the check boxes empty. The IC 1 EIB does not change the configuration of these system sections.

3. Click *Reset*. The IC 1 EIB resets the selected system sections to their default configuration.

Reboot

If external USB devices have been exchanged, and have not been recognized automatically, the Internet controller must be restarted manually.

The purpose of the reboot is to reinitialize the device. This procedure takes max. 1 minute - depending on the models and number of external devices.

After a restart no values in the RAM of the device are lost, for example camera images and history data.



To perform a restart:

1. In the navigation bar, click *Configuration* and select *System functions*. The IC 1 EIB opens the *Restore to initial values* tab.
2. Click the *Reboot* tab heading. The IC 1 EIB opens the *Restart device* tab.
3. Click *Do reboot*. The IC 1 EIB is restarted and initialized.

Restart device

Whenever external USB devices are changed and not recognized automatically or in case of difficulties with the web access after you have modified the internet settings, the Internet Controller has to be rebooted manually.

A reboot is needed to re-initialize the device. The process itself requires approx. 1 minute - depending on the internal hardware equipment and external devices.

ATTENTION: Along with the reboot, all data that resides in the working memory (RAM) only, e.g. camera pictures or history datasets, will be lost.

Store any required data to your desktop PC by sending it via e-mail or direct download from within your browser software!

Do reboot

Reboot

Update

The system update ensures that an IC 1 EIB Internet Controller REG-K is working with the latest versions of the operating software and user interface. There are two different options for achieving this: In the case of devices with Internet access, you can go to *Configuration* ⇒ *System functions* ⇒ *Update* to directly check online whether there a new version of the device software exists. If the search was successful, the IC 1 EIB displays detailed information regarding the update. Click *Do update* to download the current software and perform the update. At the end of the update procedure, the IC 1 EIB performs a reset with automatic restart.

Check for updates online

This device has the following hardware equipment and software versions:

- Hardware revision: **0001-0000-004**
- RAM memory: **16 MB**
- ROM memory: **2 MB**

- Firmware version: **01.10**
- Firmware date: **2002-09-07**
- Revision user interface: **2002-08-27**

The device can only perform an online search for updates if an internet connection can be established via LAN gateway or by using a dial-up phone connection. The verification and the update process may take several minutes!

Check now

Update

To search for updates online, the IC 1 EIB has to set up an Internet connection via the telephone or alternatively via a gateway in the LAN. The search as well as the update procedure itself can take several minutes.



To perform an online update:

1. In the navigation bar, click *Configuration* and select *System functions*. The IC 1 EIB opens the *Restore to initial values* tab.
2. Click the *Update* tab heading. The IC 1 EIB opens the *Update operating system* tab.

You can see the equipment and the version of the IC 1 EIB under *Check for updates online*.
3. Click *Check now*. The IC 1 EIB checks whether a new version of the device software exists. If an update exists, the IC 1 EIB displays the corresponding update information.
4. Click *Do update*. The IC 1 EIB starts the update process.



Local update with update software: As alternative to the system update via the Internet, you can also perform the update via the Windows update software that is available for download in the IC 1 EIB service area at <http://www.merten.com>. Execute the program on a PC that has a network connection to the device that should be updated and follow all further instructions given by the software. Such a local update is also advised when the device is only connected to the Internet via a slow connection, or if a range of controllers in the LAN should be updated consecutively.

Update check finished

An online update for this device is available!
The following list shows some information on version and date of the update option:

Version: 01.10

Date: 2002-09-07

File size: 844 KB

Description: Update of your internet controller to the latest firmware.
Your user data might be lost. The recorded data will be lost.

Perform update

Starting the update

5.

User interface

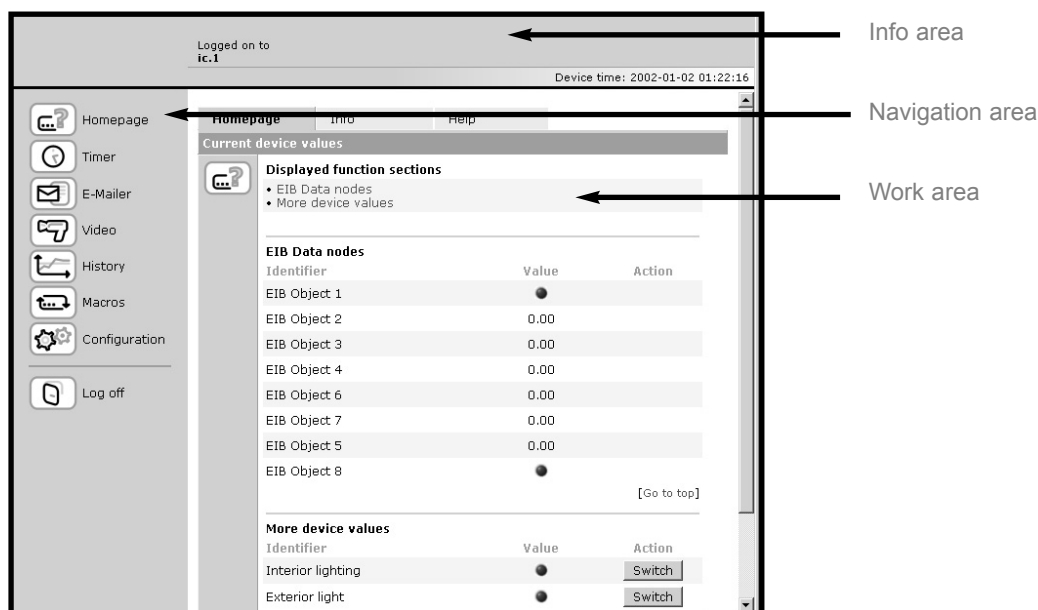
The IC 1 EIB is completely controlled via an Internet browser. The user interface of the IC 1 EIB is therefore constructed like an Internet site. The IC 1 EIB contains an integrated web server. All pages of the user interface are saved on the device itself, as HTML pages. When they are called up, the IC 1 EIB sends them directly into the Internet or intranet.

By dialling in via the "IP address" or via "IP address/PC" or "IP address/PDA", merten@home will be started as the user interface. By dialling in with "IP address/Classic", the user interface described in this book will be started. merten@home will be configured by the merten@home configurator. Some settings for the IC 1 EIB can be made in both user interfaces and also in the merten@home configurator. merten@home and the merten@home configurator are largely self-explanatory and assistance is available in the form of the online help.

The IC 1 EIB offers you a configurable user administration, with several levels. The levels range from the viewer, who cannot configure or switch anything, the operator, who can use the switch functions, but is not allowed to configure anything, up to the administrator, who has full access to all device functions. Depending on the user rights, the IC 1 EIB displays a few control elements more or less on the user interface.

Layout

1 The user interface of the IC 1 EIB is divided into three areas. The IC 1 EIB displays the info area at the top, the navigation area at the left and the work area at the right. The info area always tells you which IC 1 EIB Internet Controller REG-K you are currently accessing and what the system time on the device is. With the navigation area you can “surf” in the way you would on Internet pages. You can go to various system sections of the IC 1 EIB, or to linked devices, if you have an IC 1 EIB network. The work area displays the content of the system sections of the IC 1 EIB: Home page, Timer, E-mailer, Video, History, Macros, Configuration.



User interface of the IC 1 EIB

Info area

The info area contains the device name and the system time of the IC 1 EIB that you logged onto. You can use the two graphical links - Merten and Domoport - to go to the website of Merten (<http://www.merten.com>) or to the Domoport Internet portal (<http://www.domoport.de> or <http://www.domoport.com>). The PC respectively opens the Merten or Domoport website in a new browser window. To do so, the PC must have Internet access.

Navigation area

You can use the navigation area to go to the various work areas of the IC 1 EIB.

The navigation area is constructed as a list of graphical links. The links either directly open the various work areas of the IC 1 EIB, or open submenus with further links. Depending on the configuration and the access rights of the user, the IC 1 EIB displays all links in the navigation area, or only a selection of links.

The navigation area contains the following control elements. They might not all be displayed:



Select device: Opens a submenu with a list of linked devices. You can use *Select device* to connect to linked devices. The IC 1 EIB only displays the *Select device* icon if there are linked devices.



Homepage: Opens the device homepage.



Timer: Takes you to the *Set up timer programs* tab of the *Timer* work area.



E-Mailer: Takes you to the *Set up message programs* tab of the *E-mailer* work area.



Video: Takes you to the *View external video source* tab of the *Video* work area.



History: Takes you to the *Display recorded device values* tab of the *History* work area.



Macros: Takes you to the *Manage device macros* tab of the *Macros* work area.



Configuration: Opens the *Configuration* menu. You can use the *Configuration* menu to access the following work areas: *Basic settings*, *Data objects*, *User accounts*, *Linked devices* and *System functions*.



Log off: Logs off the user and ends the IC 1 EIB session.

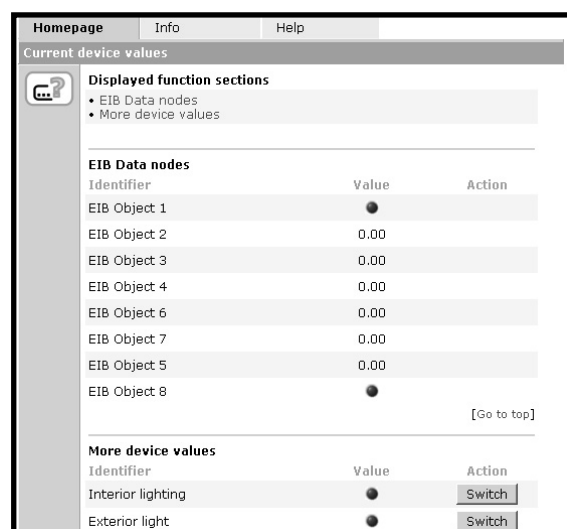


Navigation area

Work area

The IC 1 EIB opens the device pages for the various system sections in the work area. The device pages are designed in the form of tabs. Each tab has a tab heading containing a link to the respective tab. Below the tab headings, the IC 1 EIB displays the name of the open tab. The name provides information on what you can view, switch, set, configure, etc. on the respective tab. You use the tabs to switch and configure the IC 1 EIB, and to design its system functionality. Each system section has a tab called *Help*. On the *Help* page, you can find a collection of instructions regarding the respective system section.

The tabbed pages only contain the kind of control elements that are commonly used on Internet pages: links, buttons, input and display boxes, list boxes, check boxes and options.



Work area

Display

2 The exact look of the user interface of the IC 1 EIB depends on the access level of the user that is logged on. The lower the access level, the simpler the user interface and the interaction options of the user. Administrators (access level 3) always have access to all function areas and have exclusive access to the configuration pages of the IC 1 EIB. All access levels have access to the device home page. Viewers (access level 1) cannot switch anything or influence the functionality of the IC 1 EIB in any way. All other access rights can be assigned depending on the access level.

Administrator view

User accounts with administrator rights (access level 3) automatically have access to all function areas of the IC 1 EIB, incl. the configuration pages. It is not possible to lock function areas from the administrator by using the *Configuration* ⇒ *User accounts* ⇒ *Access levels* page.

Limitations to the Viewer and Operator view

For the operator (access level 2), the IC 1 EIB hides the *Configuration* system section. In the IC 1 EIB user interface that the viewer (access level 1) can access, the buttons on the homepage are also hidden. Viewers cannot change any settings or configurations, and cannot switch outputs or variables. The "Default configuration of the user rights" illustration shows the default configuration of the IC 1 EIB access rights.

Accessible function areas			
Important note: User accounts with administrator rights (access level 3) have inherent access right to all function sections including the configuration pages!			
	Level 3 Administrator	Level 2 Operator	Level 1 Viewer
Homepage	☒	☒	☒
Time	☒	☒	☐
E-Mailer	☒	☒	☐
Video	☒	☒	☒
History	☒	☒	☒
Macros	☒	☐	☐
Device forwarding	☒	☒	☐
Configuration	☒	☐	☐

Default configuration of the user rights

6.

System areas

The functions of the IC 1 EIB are subdivided into the following system areas: *Homepage*, *Time*, *E-mailer*, *Video*, *History*, *Macros* and *Configuration*. The *Configuration* system area is described in the “Startup” chapter. The various system areas can be opened from the navigation bar.

By configuring the system areas, you define how the automatic functions of the IC 1 EIB are to be implemented: In the main, the system areas operate independently from each other. However, you can also use global variables to link the system areas with each other and to implement complex system functions.

This chapter describes the functionality and configuration of the IC 1 EIB system areas.

Homepage

1 The device home page provides you with an overview and rapid access to all of the statuses and values at the EIB group addresses as well as the programmable variables. Simple on/off switch statuses are indicated using LEDs while numerical values are displayed directly together with their physical units. The IC 1 EIB updates the homepage automatically. Thus the displayed values always represent the current situation at the device.

Homepage

The homepage can be configured under *Configuration* ⇒ *Data objects*. You can select any of the displayed elements, arrange them as you wish, and subdivide them into freely definable function groups. In the configuration area you can also define which values are to be available for user interaction. Buttons and input boxes appear only for these values on the IC 1 EIB homepage.

Any current message chains from the E-mailer are displayed on the IC 1 EIB home page. Users with administrator authorization can reset the message chains here.

Technical information on the device is displayed under *Info*. This includes system data and version information such as the current firmware version and the user interface revision number, and also provides you with access to the log book.

Active message chains: The IC 1 EIB only displays the active message chain area when a message chain is currently active. The IC 1 EIB displays the name of the message program that started the message chain.



Click Reset. The IC 1 EIB stops the current message chain. All additional message receivers no longer receive the message chain from the IC 1 EIB.

Displayed function sections: The IC 1 EIB contains links to other function areas of the device home page under *Displayed function sections*. The links are displayed by the IC 1 EIB when the *Show function section links* setting is selected in *Configuration* ⇒ *Data objects* ⇒ *Order*. The names of the links correspond to the names of the section separators. The section separators can be configured under *Configuration* ⇒ *In-/Outputs* ⇒ *Order*.



Click a link under *Displayed function sections*. The IC 1 EIB "jumps" to the corresponding function section on the device homepage.

Homepage	Info	Help																											
Current device values																													
Displayed function sections - EIB Data nodes - More device values																													
EIB Data nodes <table> <thead> <tr> <th>Identifier</th><th>Value</th><th>Action</th></tr> </thead> <tbody> <tr> <td>EIB Object 1</td><td>●</td><td></td></tr> <tr> <td>EIB Object 2</td><td>0.00</td><td></td></tr> <tr> <td>EIB Object 3</td><td>0.00</td><td></td></tr> <tr> <td>EIB Object 4</td><td>0.00</td><td></td></tr> <tr> <td>EIB Object 6</td><td>0.00</td><td></td></tr> <tr> <td>EIB Object 7</td><td>0.00</td><td></td></tr> <tr> <td>EIB Object 5</td><td>0.00</td><td></td></tr> <tr> <td>EIB Object 8</td><td>●</td><td></td></tr> </tbody> </table> [Go to top]			Identifier	Value	Action	EIB Object 1	●		EIB Object 2	0.00		EIB Object 3	0.00		EIB Object 4	0.00		EIB Object 6	0.00		EIB Object 7	0.00		EIB Object 5	0.00		EIB Object 8	●	
Identifier	Value	Action																											
EIB Object 1	●																												
EIB Object 2	0.00																												
EIB Object 3	0.00																												
EIB Object 4	0.00																												
EIB Object 6	0.00																												
EIB Object 7	0.00																												
EIB Object 5	0.00																												
EIB Object 8	●																												
More device values <table> <thead> <tr> <th>Identifier</th><th>Value</th><th>Action</th></tr> </thead> <tbody> <tr> <td>Interior lighting</td><td>●</td><td>Switch</td></tr> <tr> <td>Exterior light</td><td>●</td><td>Switch</td></tr> <tr> <td>Temperature</td><td>●</td><td>Switch</td></tr> <tr> <td>Fill level</td><td>●</td><td>Switch</td></tr> </tbody> </table> [Go to top]			Identifier	Value	Action	Interior lighting	●	Switch	Exterior light	●	Switch	Temperature	●	Switch	Fill level	●	Switch												
Identifier	Value	Action																											
Interior lighting	●	Switch																											
Exterior light	●	Switch																											
Temperature	●	Switch																											
Fill level	●	Switch																											

Example of a home page

EIB data objects and variables: The arrangement of the device homepage is configurable to a large degree. Under *Configuration* ⇒ *Data objects*, all EIB data objects and variables can be given user-defined names and their arrangement on the device home page can be defined. By default the IC 1 EIB lists the first 5 EIB objects and 5 variables. Then the variables follow. The appearance of the EIB data objects and variables on the device home page of the IC 1 EIB varies according to the configuration settings. The following displays some of the switch and indicator elements which may appear on the device home page:

Displayed function sections

- EIB Data nodes
- Variables

EIB Data nodes

EIB Object 1		Switch
EIB Object 2		Set
EIB Object 3		Set: 12,35
EIB Object 4	☐	

[Go to top]

Variables

Variable 1	☐	Switch
Variable 2	☐	
Variable 3	0.00	Set
Variable 4	0.00	Reset
Variable 5	0.00	

[Go to top]

EIB Data nodes

Data nodes	Operation
EIB Object 1	Button only
EIB Object 2	Value and button
EIB Object 3	Value and button with switching value
EIB Object 4	Value only

Variables

Variable	Use/Button
Variable 1	Switch state with button
Variable 2	Switch state without button
Variable 3	Set numeric value
Variable 4	Numeric value with Reset button
Variable 5	Numeric value without button

Timer

2 The timer features in the IC 1 EIB can be used to turn the EIB objects and variables off and on according to a timer program. There are 32 different timer programs available for this. The timer programs can be used to configure automatically repeating processes on the IC 1 EIB Internet Controller REG-K. A timer program defines the switch objects, switch times, as well as the days of the week during which the program is to run. The exception days are of particular importance. Exception days include, for example, holidays or a period of days such as a company vacation, and require special handling.

Programs

You can set up the timer program on the *Set up timer programs* page. The days of the week on which the program is to run and the times at which the objects are to be switched on/off can be defined separately for each active program. The on/off switch times can be optionally defined: the switch objects in a timer program can only be turned on, turned off, or turned on and off. The IC 1 EIB continuously compares the times you have set with the current device time; if they match the program turns the object on or off exactly as defined for that current day. Timer programs can be created, activated, deactivated, modified, or deleted.



To install the timer programs:

1. Click *Time* in the navigation bar. The *Set up timer programs* page is now visible.
2. **Select program:** The IC 1 EIB contains a maximum of 32 timer programs. A separate storage space is reserved for each program on the device. The *Select program* list contains storage spaces for the timer programs. Timer programs which have already been configured are displayed with their names.

Select an unused storage space or an existing timer program in the *Select program* list. The IC 1 EIB highlights the selected space or timer program. When a timer program is selected, its name is displayed in the *Identifier* box.
3. **Identifier:** Enter the name for a new timer program in the Identifier box or change the program name selected in the *Select program* list. The name may contain up to 20 characters.



Switch-off time before switch-on time:

If the switch-off time is defined ahead of the switch-on time, the switch object remains turned on beyond the date limit.

Example: ■ Switch-off time = 12:00

■ Switch-on time = 12:01

■ Active weekdays: Only Mo.

■ No exception days defined

The IC 1 EIB turns off the switch object on Monday at 12:00 (i.e., transmits a "off" switch impulse). The IC 1 EIB turns the switch object on again at 12:01 and it remains on for one week until the next Monday when it is turned off at 12:00. Therefore, the switch object is turned off for exactly one minute each week on Monday between 12:00 and 12:01.

Under *Identifier*, enter the name for the new timer program or change the name of the selected timer program. The IC 1 EIB stores this timer program under the given name when the page is saved.

4. **Switch times:** Under Switch times you can enter the switch times at a precision of one minute.

The *Switch objects on at:* and *Switch objects off at:* lists are “drop-down lists”. Click on an arrow to open the list. In the default setting, no switch times are set. The switch times can be selected from the corresponding lists in the following format:

HH (hour) : MM (minutes)

Click the arrow in the *Switch objects on at:* list. This expands the list. Select the switch-on time from the list:

or

Click the arrow in the *Switch objects off at:* list. This expands the list. Select the switch-off time from the list:

6. **Active weekdays:** Select the weekdays under active weekdays during which the IC 1 EIB is to process the timer program. All weekdays are deactivated in the default setting.

Under *Active weekdays*, clear the check boxes for the weekdays on which the IC 1 EIB is to ignore the timer program.

or

Under *Active weekdays*, select the check box for the weekdays on which the IC 1 EIB is to run the timer program.

7. **Yearly exception days:** Under *Yearly exception days*, select how the timer program is to operate on exception days. You have the following options:

- *Ignore exception days:* The IC 1 EIB runs the timer program independently of the exception days on all days which have been selected under *Active weekdays*.
- *Do not execute program on exception days:* The IC 1 EIB runs the timer program on all active weekdays which are not defined as exception days.
- *Execute program only on exception days:* The IC 1 EIB runs the timer program only on exception days. The option *Execute program only on exception days* is linked logically using an “AND” operator to the switch days selected under *Active weekdays*. You can then define a timer program that, for example, is to be executed on all Sundays which have been defined as exception days.

Example: Configuring a timer program

Click an option under Yearly exception days. You can only select one option. On exception days, the IC 1 EIB behaves according to the selected option.

8. **Assign switch objects:** Under Assign switch objects, select the switch objects to be switched on and off by the IC 1 EIB using the timer program.

Select the objects to be switched by the timer program in the list box under *Assign switch objects*. To select several switch objects, select them while holding the [CTRL] key. The IC 1 EIB assigns the selected switch objects to the timer program.

9. **Activation:** Switch the timer program on and off under Activation. Thus you can set up timer programs that are only occasionally required, for example, for a long-term absence, or for testing the technical building facilities.

Under *Activation*, select the *Program active* check box. The IC 1 EIB executes the timer program.

or

Under *Activation*, clear the *Program active* check box. The IC 1 EIB does not run the timer program.

10. **Save:** Click Save. The IC 1 EIB saves the timer program.
11. **Delete:** Click *Delete* and confirm the security query with OK. The IC 1 EIB deletes the timer program.

Exception days

You can select the exception days for the entire year on the *Set up yearly exception days* page. Here you can select days that require special treatment, such as national holidays, or time ranges spanning several days, such as company holidays. In the default setting, no exception days are selected.



Defining exception days:

1. Click *Time* in the navigation bar. The *Set up timer programs* page is now visible.
2. Click the Exception days tab. The *Set up yearly exception days* page is now visible.
3. Select the check boxes corresponding to the exception days. The IC 1 EIB defines the selected days as exception days.
4. **Save:** Click Save. The IC 1 EIB saves the exception days.



Note that the defined exception days apply to all 32 timer programs together!

Selected exception days	
January	☒ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08 ☐ 09 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 23 ☐ 24 ☐ 25 ☐ 26 ☐ 27 ☐ 28 ☐ 29 ☐ 30 ☐ 31
February	☐ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08 ☐ 09 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 23 ☐ 24 ☐ 25 ☐ 26 ☐ 27 ☐ 28 ☐ 29
March	☐ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08 ☐ 09 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 23 ☐ 24 ☐ 25 ☐ 26 ☐ 27 ☐ 28 ☐ 29 ☐ 30 ☐ 31
April	☒ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08 ☐ 09 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 23 ☐ 24

Example: Configuring exception days

E-mailer

- 3** The IC 1 EIB E-mailer can automatically send alarms or messages to e-mail recipients whenever a device digital input or a programmable variable is switched on. A message program monitors the EIB object or the variable responsible for sending the e-mail. If a message program is started, it sends a message to the previously defined e-mail addresses.

Programs

A message program is an automatic messaging module. You can assign a EIB object or a variable to a message program for monitoring. If this input or variable is switched, this is registered by the message program which sends an e-mail to one or more message recipients. You also assign the message recipients to the message program. The E-mailer allows up to 32 message programs and 32 message receivers. You can assign a trigger and one or more message receivers to each message program. Together with a message text of up to 200 characters, the E-mailer can also send the following as attachments: the current status of all device values on the home page, the most recent history data (maximum 5000 data records), and/or the most recent camera image. The E-mailer attaches the files to the e-mail. You can create message programs, activate or deactivate them, or even change or delete them.

**To install a message program:**

1. Click *E-mailer* in the navigation bar. The *Set up message programs* page is now visible.
2. **Selecting a message program:** The IC 1 EIB manages at least 32 message programs. A separate storage space is reserved for each program on the device. The *Select message program* list contains storage spaces for the message programs. Message programs which have already been configured are displayed with their names.

Select an unused storage space or an existing message program in the *Select message program* list. The IC 1 EIB highlights the selected space or message program. When a message program is selected, its name is displayed in the *Identifier* box.

Installing message program

3. **Identifier:** Enter the name for a new message program in the Identifier box or change the program name selected in the *Select message program* list. The name may contain up to 20 characters.

Under *Identifier*, enter the name for the new message program or change the name of the selected message program. The IC 1 EIB stores this message program under the given name when the page is saved.

4. **Trigger object:** In the *Trigger object* list, select a trigger object for e-mail messages. You can use all EIB objects and variables of the IC 1 EIB as e-mail triggers. Whenever the IC 1 EIB activates the switch object - thus setting its value to "True" (rising edge) - the message program starts and the IC 1 EIB sends an e-mail.

Select a list item from the *Trigger object* list. The IC 1 EIB configures the selected input or variable as a trigger for e-mail messages when the page is saved.

5. **Message text:** Enter the text contents of the e-mail message in the *Message text* box. The message text may contain up to 200 characters.

Note: Note the following when sending an e-mail message as an SMS: When you send an e-mail message as an SMS, only the reference line is transferred. The *reference* line of an e-mail message corresponds to the contents of the *Identifier* box.

Enter the contents of the e-mail message into the *Message text* box.

6. **Attach files to message:** Under Attach files to message, select the attachments to be sent with the e-mail. The following text/image attachments can be sent with an e-mail, as required:

- Current status of all values on the device home page: Check box *Current device values from home page*
- The log book file: check box *Log file with system events*.
- History data recorded up to time of sending: Check box *History data as text file* (maximum 5000 data sets as text file)
- The last camera image taken: Check box *Most recent image from video store* (as image file in JPG format)

Select one of the check boxes under *Attach files to message*. The IC 1 EIB attaches the appropriate file to the e-mail as an attachment.



Displaying the e-mails in the output memory (queue):

Whenever the IC 1 EIB cannot send e-mails, it saves them in an output memory (queue). You can see which e-mails are in the output memory by going to Mails within send queue on the Info page (*Homepage* ⇨ *Info*). The IC 1 EIB cyclically attempts to send the retained e-mails. The repetition cycle is 5 minutes for 25 repeated attempts. Users with administrator rights can delete all e-mails in the queue by clicking the Delete buffer button.

7. **Assign message receivers:** Under *Assign message receivers*, select the e-mail addresses to which the IC 1 EIB is to send the e-mails. The IC 1 EIB enters all of the e-mail addresses of the user accounts into the selection list under *Assign message receivers*. Additional e-mail addresses for message receivers can be installed under *Receivers* on the *Set up e-mail receivers* page.

Select an e-mail address under *Select receiver*. To select several e-mail addresses, select them while holding the [CTRL] key. The IC 1 EIB assigns the selected e-mail addresses as message receivers to the message program.

8. **Activation:** Under activation, you can turn the message program on or off. In this way, you can also configure message programs which are only to run when required.

Under *Activation*, select the *Program active* check box. The IC 1 EIB runs the message program.

or

Under *Activation*, clear the *Program active* check box. The IC 1 EIB does not run the message program.

9. **Save:** Click *Save*. The IC 1 EIB saves the message program.
10. **Delete:** Click *Delete* and confirm the security query with *OK*. The IC 1 EIB deletes the message program.



E-mails to several recipients: The E-mailer of the IC 1 EIB can also send message e-mails to several recipients at the same time. To select several e-mail recipients, select them in the *Select message receivers* list while holding the [CTRL] key.

If you want the message program to send off a **Message chain**, select *Message chain* under *Select message receivers*. The E-mailer then sends several e-mails at staggered intervals to the recipients entered on the *Configure message chain* tab.

Receivers

Message receivers are e-mail addresses to which a message program sends its e-mails. Via a message chain, the e-mailer can inform several receivers at periodic intervals. The message chain is a list of message receivers (e-mail addresses). The message program sends its message e-mail to these e-mail addresses sequentially and at configurable intervals.

The IC 1 EIB can also send e-mails as SMS or to mobile telephones. The maximum length of an e-mail is limited in SMS to 160 characters. Here, the IC 1 EIB only sends the e-mail reference line; the body cannot be sent as an SMS. SMS messages can be sent using the special gateways operated by the telephone service providers. For example, you can send an SMS to a D2 mobile phone number by sending an e-mail to the following address: `Phonenumber@d2-message.de`.

Receiving e-mails on a mobile phone as an SMS is subject to charges. Therefore this service has to be activated with your mobile network operator. The table at the right shows how to activate and deactivate e-mail reception on a mobile telephone.

You can configure, modify, or delete message receivers to be used in a message chain.



Configuring message receivers:

1. Click *E-mailer* in the navigation bar. The *Set up e-mail receivers* page is now visible.
2. Click the *Receivers* tab. The *Set up e-mail receivers page* is now visible.
3. **Select receiver:** The IC 1 EIB manages up to maximum 32 message receivers. A separate storage space is reserved for each message receiver on the device. The *Select receiver* list contains storage spaces for the message programs. Receivers which have already been configured are displayed with their e-mail addresses.

Select an unused storage space or an existing message receiver in the *Select receiver* list. The IC 1 EIB highlights the selected space or e-mail address. When you select a message receiver, the IC 1 EIB displays the e-mail address in the *Email address* box.
4. **E-mail address:** In the *E-mail address:* box you can enter the e-mail address of a new message receiver or you can change the e-mail address of the message receiver selected in the *Select message receiver* list. The e-mail address may consist of up to 50 characters.

In the *E-mail address:* box, enter the e-mail address of a new message receiver or change the e-mail address of the selected message receiver. The IC 1 EIB stores this message receiver together with the e-mail address when the page is saved.
5. **Short description:** Under *Short description*, enter a brief description of the new e-mail recipient.
6. **Message chain:** Under *Message chain*, you can select whether or not to include the message receiver in the message chain.

Select the *Use in message chain* check box. The E-mailer includes the e-mail address as a message receiver in the message chain (see "Installing a message chain:").
or
Clear the *Use in message chain* check box. The IC 1 EIB does not include the message receiver in the message chain.
9. **Save:** Click *Save*. The IC 1 EIB saves all of the configured message receivers.
10. **Delete:** Click *Delete* and confirm the security query with *OK*. The IC 1 EIB deletes all of the selected message receivers.

Receiving an e-mail on a mobile phone

D1

E-mail address: Phonenumber@t-d1-sms.de

Activation: SMS "open" to Tel.No. 8000

Deactivation: SMS "close" to Tel.No. 8000

D2

E-mail address: Phonenumber@d2-message.de

Activation: SMS "open" to Tel.No. 3400

Deactivation: SMS "close" to Tel.No. 3400

Requirement is the
D2MessagePlus service with the
SMS-center 2270333

e-Plus

E-mail address:
Phonenummber@smsmail.eplus.de

Activation: SMS "start" to Tel.No. 7676245

Deactivation: SMS "stop" to Tel.No. 7676245

Select receiver

03:

E-mail address

company@web.de

Message chain

☒ Use in message chain

Short description

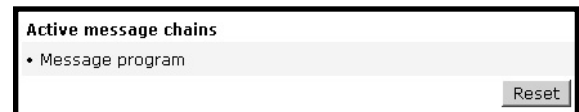
Web.de freemail account

Example: Configuring a message recipient

Message chain

A EIB object or variable is linked in the E-mailer with a configurable message delivery. For example, if EIB object 1 switches on and thus triggers an e-mail delivery to two "normal" message receivers as well as to the message chain, the E-mailer sends e-mails to the two e-mail recipients as well as to the message chain. Thus three e-mails are sent simultaneously when input 1 switches on.

While the E-mailer is processing its message chain, the message programs of the message chain are listed in the upper section of the device homepage. This list is only visible for administrators and operators. Users with viewer status can not see this list. Click the *Reset* button to stop a running message chain. If digital input 1 switches on the next time, e-mail delivery restarts: A digital input or a variable can be configured such that it triggers e-mail delivery whenever it switches on. If this e-mail delivery includes the message chain, the dispatch takes correspondingly longer and can be stopped by clicking the *Reset* button.



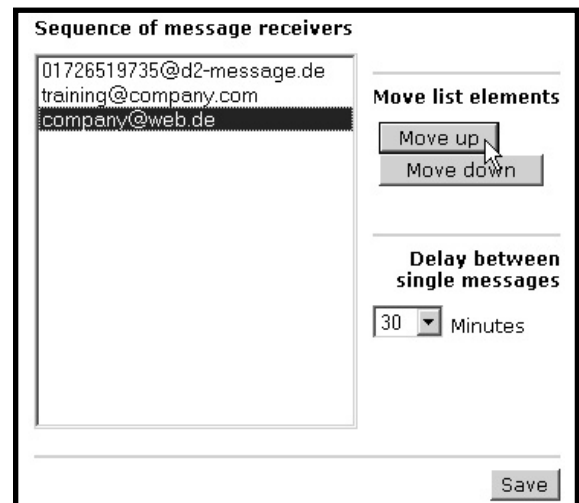
Message program list and Reset button



Configuring a message chain:

1. Click *E-mailer* in the navigation bar. The *Set up message programs* page is now visible.
2. Click the *Message chain* tab. The *Set up message chain* page is now visible.
3. **Sequence of message receivers:** The *Sequence of message receivers* list contains all of the message receivers which have been selected on the *Set up message receiver* page who are to be included in the message chain (i.e., *Use in message chain* check box is selected). Messages are sent in to the recipients in the order specified here; that is, addresses at the top of the *Sequence of message receivers* list receive the message first.
4. **Move list elements:** The *Move up* and *Move down* buttons allow you to change the sequence of the e-mail recipients. Click *Move up* to move a recipient one position upwards in the *Specify sequence of message receivers* list. Click *Move down* to move a recipient one position downwards.

Select a message receiver in the *Sequence of message receivers* list. To select several message receivers, select them while holding the [CTRL] key.



Example: Configuring a message chain

Click *Move up*. The selected e-mail address(es) are moved up by one position in the *Sequence of message receivers* list.

or

Click *Move down*. The selected e-mail address(es) are moved down by one position in the *Sequence of message receivers* list.

5. **Delay between single messages:** Under Delay between single messages, you can specify the time that is to elapse between each e-mail sending. You can select delay times of 5, 15, 30, 60, 120, or 180 minutes.

The *Delay between single messages* list is a “drop-down list”. Click on an arrow to open a list. A time lapse of 30 minutes is set in the basic setting.

Click the arrow in the *Delay between single messages* list. This expands the list. Select the delay time from the list. The IC 1 EIB sends the messages to the selected message receivers at this delay interval.

6. **Save:** Click Save. The message chain is saved.

Sequence of message receivers

01726519735@d2-message.de
training@company.com
company@web.de

Move list elements
Move up
Move down

Delay between single messages
5 Minutes

Save

Example: Configuring a message chain with SMS recipients

Email placeholders

Email placeholders are control characters, which the IC 1 EIB replaces with current values from the equipment when sending emails. You can insert email placeholders into the "names" field (subject line) or into the message text (body). They are always written in UPPER CASE and have the following structure:

[%OBJECT:FUNCTION]

The following objects can be named:

Object	Name	Object functions
Vxx	Variable	VAL, NAME, UNIT
Exxx	EIB object	BUS, NBAD, LBAD, UNIT
EIB	EIB bus characteristics	VAL, NAME, UNIT
DEV	IC 1 characteristics	NAME, VER, SER, PHON, IP, USER

(xx stands for the number of the object; e.g. "V12" for variable 12)

Functions:

VAL	Output of the current value of the object
NAME	The name of the object according to the configuration page
UNIT	The units allocated to the object value
BUS	Bus state (connected or disconnected)
NBAD	The number of EIB units currently found to be faulty
LBAD	A formatted list of EIB units currently found to be faulty (address and time of test)
NAME	Name issued for the IC 1 EIB
VER	IC 1 EIB version string
SER	IC 1 EIB serial number
PHON	IC 1 EIB phone number
IP	Local IP address of the IC 1 EIB
USER	Name of the user currently logged on

Special commands (without specifying an object):

NL	New line
DATE	Current date
TIME	Current time
BODY	Used in the "name" field: inserts body of the mail (contents of message text).

Examples:

IC 1 EIB mail text:

The alarm was triggered by your IC 1 EIB because the server room temperature [%E12:VAL][%E12:UNIT] was exceeded and this caused [%V10:VAL] servers to fail.

Result:

The alarm was triggered by your IC 1 EIB because the server room temperature of 63.00°C was exceeded and this caused 3.00 servers to fail.

IC 1 EIB mail text:

EIB state: [%NL]Bus is [%EIB:BUS][%NL]-----

[%NL][%EIB:NBAD] Faulty units:[%EIB:LBAD]-----

[%NL][%E1:VAL][%E1:UNIT]

Result:

EIB state:

Bus is connected

3 faulty units:

1) 2.3.4 20:14:18

2) 3.4.5 20:14:54

3) 4.15.32 20:15:22

Switch 1: 1circuit

Sending mails via FTP:

It is also possible to send e-mails to an FTP server. The FTP server can be in the local network of the IC 1 or on the Internet. When an IC 1 e-mail program is triggered, the e-mail or the attachments can be stored on an FTP server if you so require.

**How to configure for FTP e-mail dispatch:**

Enter the FTP server as destination in the "Receiver" field. "@ftp" must come at the end.

For example:

FTP server in the local network with the IP address 192.168.0.48 Entry in the field "Receiver": 192.168.0.48@ftp.

FTP server on the Internet with the URL ftprsc.merten.de.

Entry in the field "Receiver": ftprsc.merten.de@ftp

A path can also be specified as well (e.g. 192.168.0.48/merten/Mails/IC1/@ftp).

If a user name and a password is necessary to access the FTP server, these entries must be entered in the comment field as follows: "User name:Password".

For example:

User name = IC1 User
Password = Sahara
Entry in comment field = IC1 User:Sahara

A maximum of 32 FTP server addresses is possible.

The FTP server can also be entered as receiver within a message chain.

Since the attached file's name, which is generated in the e-mail program, can be very long, the FTP server must be able to support long file names.

Video

- 4** The IC 1 EIB can display and store video images from up to 2 analog cameras. The cameras are connected to the IC 1 EIB via the USB component USB video adapter REG-K. Please note at this point that you cannot connect USB video cameras or USB webcams (cameras with integrated web server) directly to one of the two USB interfaces of IC 1 EIB, since there are no drivers installed on IC 1 EIB for these devices. You switch over from one video image to another via a selection list.

Video image

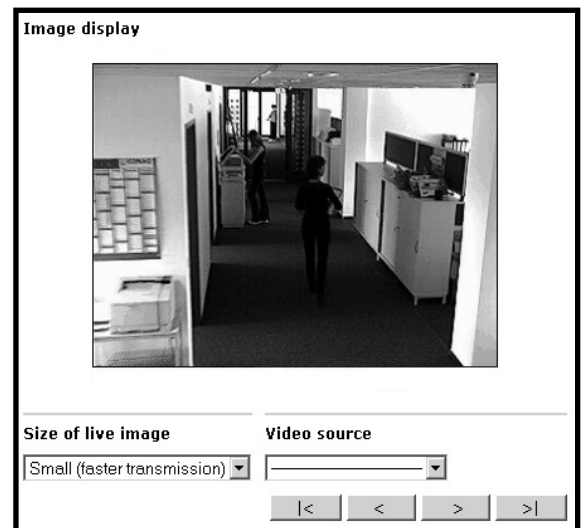
The IC 1 EIB displays video images from analog cameras on the *View external video source* page. The main page provides you with access to the current image(s) or to 128 stored snapshots. The IC 1 EIB can be configured to store these images in the RAM of the device when it receives a trigger signal. Automatic image refreshing allows you to view a video feed live without any additional user interaction.



To view video images:

1. Click *Video* in the navigation bar. The *View external video source* page is now visible.
2. **Image display:** Under *Image display*, you can view the current video stream from the video source selected in the *Video source* list. The video sources can be configured first on the *Set up video sources* tab (under *Video* ⇒ *Setup*).
3. **Size of live image:** Under *Size of live image* you can change the resolution of the video images and thus also change the transmission speed: The file size of video image with low resolution (select *Small (faster transmission)*) is smaller than that of a video with higher resolution (select *Large image*). Low resolution video images are therefore also transmitted faster.
4. **Video source:** If several video cameras are configured and connected to the IC 1 EIB, you can switch between these in the *Video source* list, or view the saved snapshots.

The *Picture store* contains the last 128 video images in a list. Here the latest video image respectively replaces the oldest one in the list. Thus, after 256 video images, the IC 1 EIB has replaced all images with new ones. The stored images are lost irretrievably whenever the IC 1 EIB is turned off.



Viewing a video stream

In the list of *video sources*, click on *Live images* to view the latest image of the respective camera.

Or:

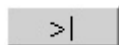
Click on a saved snapshot. The IC 1 EIB displays the selected snapshot.

5. Navigating in the list of video sources by means of the buttons:

 Displays the first entry in the *Video source* list. The first entry is the live image of the first configured video source.

 Jumps back one entry in the *Video source* list.

 Jumps one entry ahead in the *Video source* list.

 Displays the last entry in the *Video source* list.

Setup

The IC 1 EIB allows you to record snapshots from all connected video sources. The recording of snapshots can be triggered by a EIB object or a variable. The IC 1 EIB can also be configured to save video snapshots at defined intervals.

To configure video sources:

1. Click the *Setup* tab. The *Set up video sources* page is now visible.
2. **Select video source:** You can connect up to two video cameras to the IC 1 EIB using a USB video adapter REG-K video module for each. One storage space is reserved on the IC 1 EIB for the two video sources. The *Select video source* list contains storage spaces for the video sources. Video sources which have already been configured are displayed with their names.

Select an unused storage space or an existing video source in the *Select video source* list. The name of the selected video source can be changed in the *Identifier* box.
3. **Identifier:** Enter the name for a new video source in the *Identifier* box or change the video source name selected in the *Select video source* list. The name may contain up to 20 characters.

Select video source

USB camera 1: DemoCAM

Identifier

DemoCAM

Activation

☒ Use this camera

Trigger for snapshot

[Not in use]

Time controlled snapshots

[Not in use]

Reference value

12 : 00

Rotate video image

Original orientation

Insert information into images

☒ Date and time stamp
☒ Device name
☒ Name of video source

Empty image store

Delete

Save

Configuring a video source

Under *Identifier*, enter the name for the new video source or change the name of the selected video source. The IC 1 EIB stores this video source under the given name when the page is saved.

4. **Trigger for snapshot:** In the list, select a EIB object or variable as a trigger for single image recording.

Select an item from the *Trigger for single image recording* list. The IC 1 EIB configures the selected data node or variable as a trigger for single image recording when the page is saved.

5. **Time controlled snapshots:** The IC 1 EIB saves stores snapshots at periodic intervals. In the *Time controlled snapshots* list, select a time interval at which snapshots are to be automatically stored.

6. **Reference time:** The *reference time* is the point in time at which the IC 1 EIB takes a snapshot, and from which it calculates the interval for time-controlled snapshot capturing. In other words, the reference time provides the offset for the time-controlled snapshot capturing.

The *Reference time* list is a »drop-down list«. Click on an arrow to open the list. In the default settings, the reference time is 12:00. Select a reference time from the corresponding list using the format HH (hours) : MM (minutes):

Click the arrow in the *Reference time* list box. This expands the list. Select the reference time from the list.

7. **Rotate video image:** With the settings under *Rotate video image*, you can determine that the IC 1 EIB should display and save rotated versions of the video images. Thus it is possible to correctly display images from cameras that were mounted upside down, for example. The *Rotate video image* list contains the following entries:

- Original orientation
- +90° (clockwise)
- -90° (counter-clockwise)
- 180°

8. **Insert information into images:** Video images sent by the E-mailer use the most recently saved image from the picture store, independently from the video source. The images are sent in JPG format. This format can be read by all current standard browser and image processing software. In this way, a data node can be used trigger snapshots and send them via e-mail.

Under *Insert information into images*, select the corresponding check boxes. IC 1 EIB inserts the selected information into the respective video snapshot.

Time controlled snapshots

Rotate video image

9. **Activation:** Under Activation, you can switch the corresponding video sources on or off. In this way, you can configure video cameras which only provide video images when required.

Under *Activation*, select the *Use this camera* check box. The IC 1 EIB uses the corresponding video source.
or
Under *Activation*, clear the *Use this camera* check box. The IC 1 EIB does not use the corresponding video source.
10. **Empty image store:** The *Empty image store* button clears all of the snapshots in the picture store.
11. **Delete:** This deletes all of the settings for the currently selected video channel on the *Configure video sources* tab.
12. **Save:** Click *Save*. This saves all of the settings on the *Set up video sources* page.

History

5 The IC 1 EIB history archive can monitor and record the incoming data on the EIB data nodes and/or variables. To do this, specify the inputs, outputs, and/or variables to be recorded. Furthermore, specify the periodic intervals at which the incoming data is to be saved. The IC 1 EIB can store up to 128,000 history values. If the history archive is full, IC 1 EIB overwrites the oldest value with the newest. You can display the recorded device values in a graph or send it as attachment to an e-mail.

History

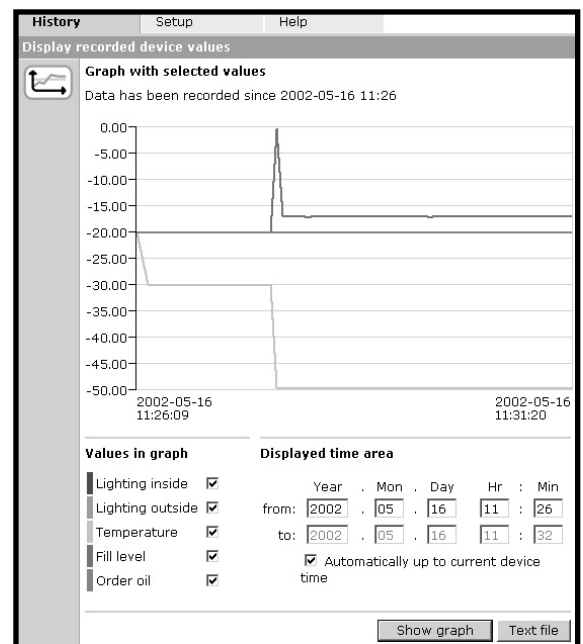
Device values are displayed on the *Display recorded device values* page at the specified time intervals. A maximum of 6 device values can be graphed using differently colored trace lines.

**To graph the saved data:**

1. Click *History* in the navigation bar. The *Display recorded device values* page opens.
2. **Graph with selected values:** Under *Graph with selected values*, you can see when the data recording started. The recorded data is graphed using trace lines.
3. **Values in graph:** Under *Values in graph*, it is possible to show or hide the trace lines for display purposes. The values to be graphed can be specified on the *Setup* tab on the *Set up history creation* page.
Select a check box under *Values in graph*. The IC 1 EIB displays the value trace in the graph.
or
Clear a check box under *Values in graph*. The IC 1 EIB removes the value trace from the graph.
4. **Displayed time area:** Under *Displayed time area*, you can specify the time range over which data is to be displayed.

Enter the time range in the *from* and *to* lines using the *Year-Month-Day Hour:Minute* format.

Automatically up to current device time: Select the *Automatically up to current device time* check box to always display the historized device data up to the current device time.



Displaying history data



Additional processing in PC: In order to saved this graphic on your PC, right-click the image and choose the menu option *Save Image As ...* in the Microsoft Internet Explorer. A PNG file, which does not require much memory space, is saved. This image can be viewed with current browsers and image processing software.

The corresponding data values can be exported as a text file by clicking *text file*. This text file can be directly imported into e.g. Microsoft Excel where the data can be further processed.

Select the check box *Automatically up to current device time*. The data traces are automatically refreshed.

5. **Show graph:** Click *Show graph*. Under *Graph with selected values*, all of the selected device values which were saved within the specified time window are displayed in a graph.
6. **Text file:** The *Text file* button displays the historized device values in a text file.

Setup

On the Set up history creation page, you can choose up to 6 values from the physical inputs and outputs on the device as well as from any variables which may have been created. These values are consecutively appended to the data file together with a time stamp. The file can record up to 128,000 data records (with 1 to 6 values respectively), above this limit the oldest existing data record is deleted when a new record is added. You can view graphs of the historized device data under *History* on the *Display recorded device values* page.

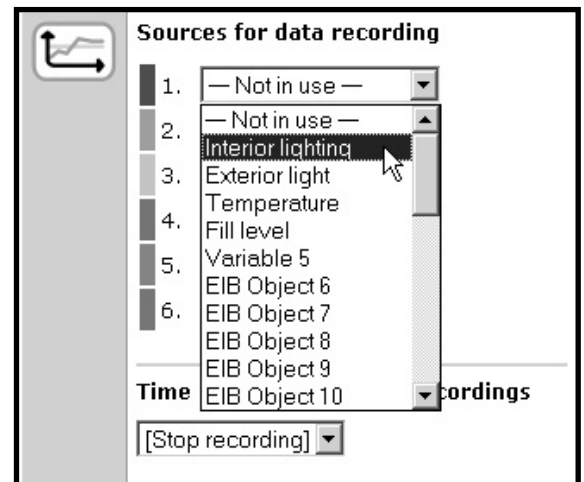


To configure the IC 1 EIB to store history data:

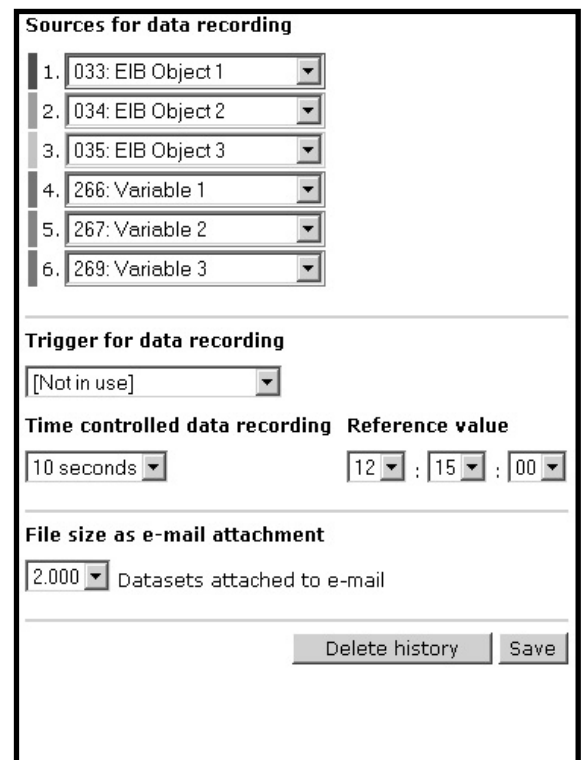
1. Click *History* in the navigation bar. The *Display recorded device values* page opens.
2. Click the *Setup* tab. The *Set up history creation* page is now visible.
3. **Sources for data recording:** Under Sources for data recording, you can specify which of the device inputs, outputs, and variables are to be graphed. Each value to be graphed is assigned a different color. Accordingly the data traces are displayed using these colors under *History* on the *Display recorded device values* page.

The six *Sources for data recording* lists are “drop-down lists”. Click on an arrow to open the list. In the default setting, no switch times are set (exception: [-Not in use-]).

Click the arrow next to the *Sources for data recording* list box. This expands the list. Select the values to be graphed from the list. The IC 1 EIB graphs these values.
4. **Trigger for data recording:** In the list, select an EIB object or a variable as trigger for recording data from the selected sources.



Example: Selecting the sources for graph data



Example: Configuring the sources for graph data

Select an item from the *Trigger for data recording* list. After the page has been saved, the IC 1 EIB configures the selected data object or variable as trigger for recording data from the configured sources.

5. **Time-controlled data recording:** Under *Time-controlled data recording* you can specify the interval at which the IC 1 EIB is to record the selected values. If the *[Not in use]* setting is selected, all time-controlled data recordings stop.

Click the arrow next to the *Time-controlled data recording* list. This expands the list. Select the desired recording interval from the list.

6. **Reference time:** The *reference time* specifies the time at which the IC 1 EIB records the selected data sources and from which it calculates the interval for timed recordings. The reference time also provides the offset for the timed recording of data sources.

The *Reference time* list is a »drop-down list«. Click on an arrow to open the list. The default setting for the reference time is 00:00. Select a reference time from the corresponding list using the format HH (hours) : MM (minutes):

Click the arrow in the *Reference time* list box. This expands the list. Select the reference time from the list.

7. **File size as e-mail attachment:** The IC 1 EIB E-mailer can be configured to automatically send the most recent history data. The IC 1 EIB saves the recorded data in a text data file. The data includes a time stamp and field data. If you send the history data by e-mail, the IC 1 EIB attaches maximum the number of data records specified under File size as e-mail attachment .

Click the arrow next to the *File size as e-mail attachment* list box. This expands the list. Select the number of data records from the list.

8. **Delete history:** Click the Delete history button to delete all of the stored data records.
9. **Save:** Click Save. This saves all of the settings on the *Set up history creation* page.



Data transfer at regular intervals: It is possible to transfer data at regular intervals as follows:

Switch on a programmable variable with the timer. The timer is simultaneously a trigger for a message program with attached history file.



Interaction of time-controlled data recording and individually triggered data recording:

The time-controlled data recording and the triggered data recording methods are linked with an "OR" operator: If you have set both types of recording, the IC 1 EIB will make timed recordings, as well as recordings triggered by means of a data object or variable, when specified events occur.

Macros



A macro is a user-defined script and serves as a programming tool. You can use macros to implement automatic procedures with the IC 1 EIB for these purposes, the IC 1 EIB includes a macro editor for querying and setting device values. You can link the device values with logical, temporal and arithmetical functions, thus graphically creating an automated procedure.

Macros

The IC 1 EIB can manage up to 16 macros. You can save, delete, edit, activate and deactivate macros. To create a new macro, first select a storage space for it. Enter an identifier for the storage space and a short description for the new macro. Next, you can select the empty macro and open the script editor to edit it.



To create a new macro:

1. Click *Macros* in the navigation bar. The IC 1 EIB opens the *Manage device macros* page.
2. **Select macro:** The IC 1 EIB can manage up to 16 macros. A storage space is reserved for each macro on the device. The *Select macro* list contains storage spaces for the macros. Macros which have already been configured are displayed with their names.

Select an unused storage space or an existing macro in the *Select macro* list. The IC 1 EIB highlights the selected space or macro. When a macro is selected, its name is displayed in the *Identifier* box.
3. **Identifier:** Enter the name for a new macro in the Identifier box or change the macro name selected in the *Select macro* list. The name may contain up to 20 characters.

Under *Identifier*, enter the name for the new macro or change the name of the selected macro. The IC 1 EIB stores this macro under the given name when the page is saved.
4. **Short description:** Under *Short description*, enter a brief description of the new macro.

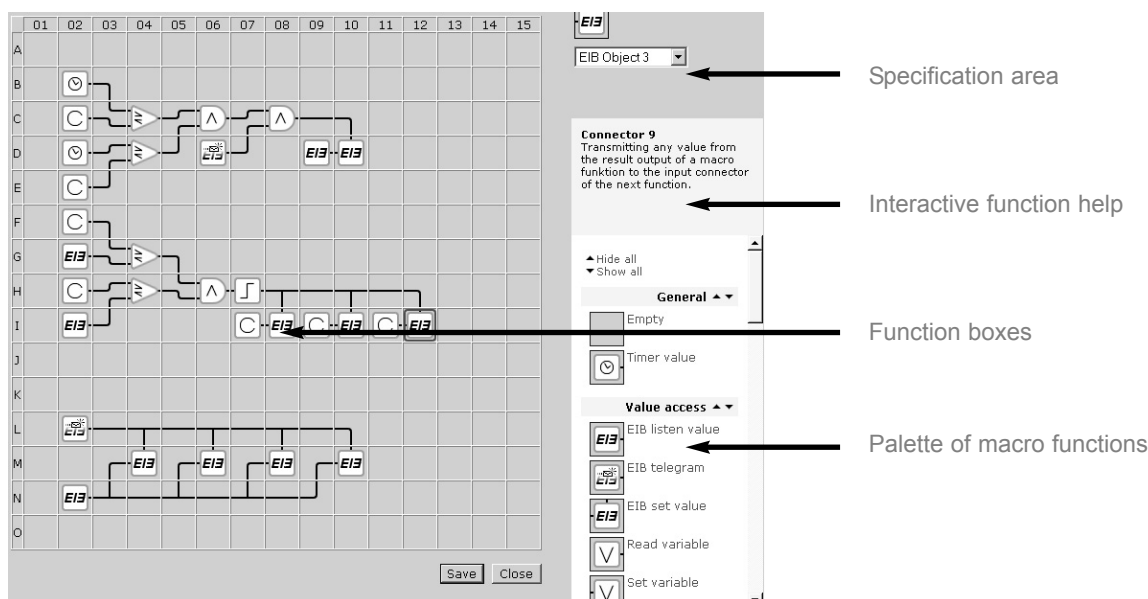
Creating a macro

5. **Activation:** Under activation, you can turn the macro on or off. In this way, you can also configure macro which are only to run when required.
6. **Save:** Click *Save*. The IC 1 EIB creates the macro.
7. **Edit:** Click *Edit*. The IC 1 EIB script editor opens. You can program the selected macro in the script editor.
8. **Delete:** Click *Delete* and confirm the security query with *OK*. The selected macro is deleted.

Editing macros

You program macros in the IC 1 EIB script editor. The script editor is subdivided into two sections: at the left is the editing environment, and at the right the palette with the individual macro functions.

The editing environment contains 15 x 15 square function boxes, which are arranged like a chessboard. A macro function from the palette can be assigned to each function box. To edit scripts, click a function box and then select a macro function from the palette. The selected macro function is inserted into the selected function box. Each macro function you insert represents a step in the sequence of an automated functional process. By creating logical combinations between the individual macro functions in the script editor, you are effectively defining an automatic sequence, module by module. To help you do this, the palettes provide you with a wide range of functions for querying or setting device values as well as mathematical and logical operators. You connect the script modules using connector and distributor elements. When completed, the macro is essentially a chain of script modules in a sequential diagram, similar to an electric circuit diagram.



**To edit a macro:**

1. Select a macro in the *Select macro* list on the *Manage device macros* page. The name and short description of the macro are displayed under *Identifier* and *Short description*.
2. Click *Edit*. The script editor opens for the selected macro.
3. In the palette bar, click *Show all*. All of the palettes open.
4. Click a function box in the editing environment. The corresponding function box is highlighted in red.
Note: You can start at any of the function boxes; it does not matter which box is programmed is first. However, do make sure to keep sufficient space to the right (and perhaps also upwards) such that all of the script macro functions can be implemented.
5. Click a macro function in the palette. The selected macro function is inserted into the function box.
Note: The specifications of the selected macro function are displayed on the palette bar. The macro function is defined in the specification list.
6. Repeat these basic steps for each macro function of the script.
7. Click *Save*. The macro is saved.



Interactive function help: When you move the mouse cursor over a macro function, a brief description of the function appears in the *Interactive function help* box.

Macro functions**Value access:**

Timer value: Returns a selectable timer information in form of an integer value.



EIB listen value: Returns an EIB data node value according to the latest detection of an EIB telegram to its address.



EIB telegram: Signals the occurrence of an EIB telegram by returning a TRUE (1) state, disregarding the actual value of the telegram.



EIB set value: Writes an EIB data object value, with the bus telegram being triggered by an explicit boolean TRUE (1)-state handed over at the top function input.



Read variable: Read a variable as a floating-point number which can also be used as a boolean value. 0 -> FALSE, unequal 0 -> TRUE.



Set variable: Set a variable to a floating-point number or boolean value, whereby TRUE is stored as 1 and FALSE is stored as 0.



Read constant: A constant allows you to introduce a freely definable yet unvarying value into the data flow.

Arithmetic:

Addition: Sum of two input values; may be floating-point numbers or boolean conditions.



Subtraction: Difference between two input values; may be floating-point numbers or boolean conditions.



Multiplication: Product of two input values; may be floating-point numbers or boolean conditions.



Division: Quotient of two input values; may be floating-point numbers or boolean conditions.

Logic:

And: AND combination of two boolean values: The result is only TRUE when both inputs are TRUE, otherwise it is FALSE.



Or: OR combination of two boolean values: The result is TRUE if one or both inputs are TRUE, otherwise it is FALSE.



Not: Negation of a boolean input value: TRUE becomes FALSE, FALSE becomes TRUE.



Comparison: Comparison of two values: Depending on its configuration, this function returns boolean TRUE (1) if A is less than B, A is equal to B, or A is greater than B; otherwise it returns FALSE (0).



Condition: Conditional selection between two values: If the selected input is TRUE, the configured input value is returned, otherwise the other value is returned.

Edge control:

Rising edge: If the input value changes from boolean FALSE(0) to TRUE(1), a TRUE impulse is generated at the output; after this the output value returns to FALSE.



Falling edge: If the input value changes from boolean TRUE(1) to FALSE(0), a TRUE impulse is generated at the output; after this the output value returns to FALSE.

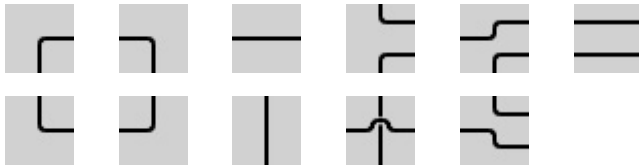


Monoflop output: Reads the respective monoflop input.



Monoflop input: Generates a TRUE impulse at the output for the specified duration (in seconds) whenever the input switches to TRUE.

Connector: Connects a given value from the output of a script function to the input of the next function.



Distributor: Distributes a given value from the output of a function to the inputs of additional script functions. Values are always distributed from the left to the right!

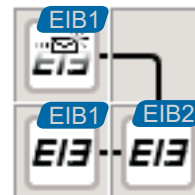


Makro examples

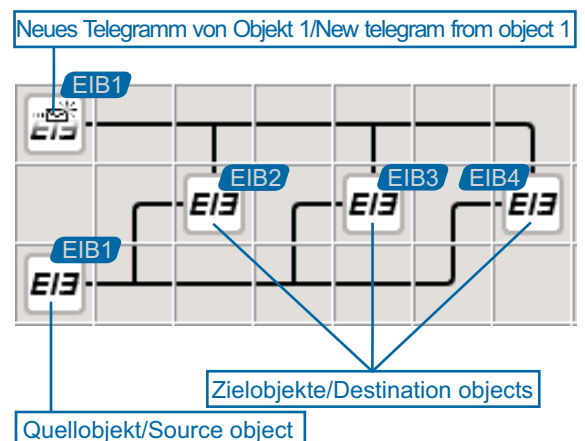
Legend:

EIB1	EIB Objects	e.g.: »EIB Object 1«	Val1	Value	e.g.: »Value 1«
Var1	Variable	e.g.: »Variable 1«	1	Constant	e.g.: Constant value »1«

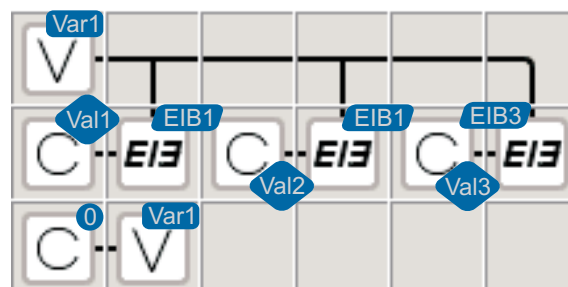
Simple telegram forwarding: An incoming telegram for EIB object 1 is immediately forwarded to EIB object 2.



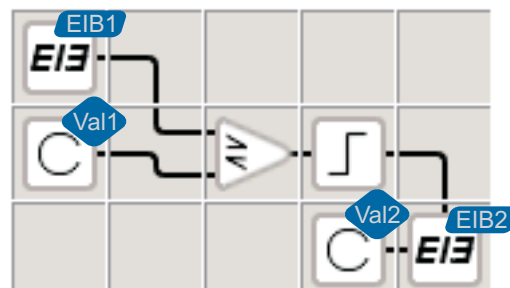
Telegram forwarding to 3 EIB objects: Each telegram received by object 1 is forwarded to objects 1, 2 and 3 as a write telegram.



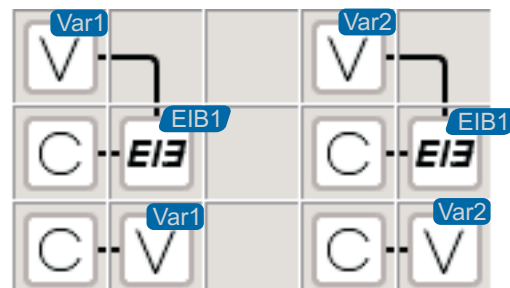
Switching a lighting scene: If you click the button for variable 1 on the homepage, the IC 1 EIB sends three preset values (value 1, 2 and 3) to three different EIB objects (EIB object 1, 2 and 3). With this macro you can switch a number of EIB objects simultaneously. The variable 1 is set after the switching immediately again on the value 0. With it you get a push-button function which prevents that permanently on the bus is written.



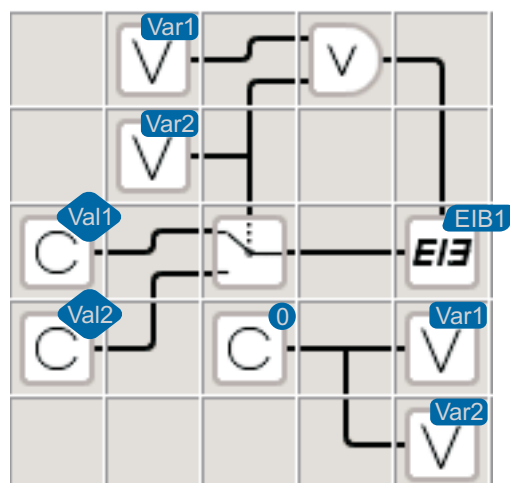
Value monitoring: If the value of an EIB object 1 is above or below a preset value 1, the IC 1 EIB sends a telegram with preset value 2 to the EIB object 2.



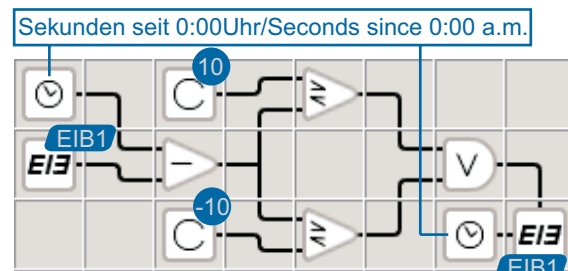
Frequent errors: Several sources may not write to one EIB object simultaneously. This would cause an internal conflict, with the result that the IC 1 EIB only executes the last command. This rule regarding multiple writing processes onto an EIB object applies both to writing within one macro and within several macros. In the example shown, only variable 2 would trigger a switch action at EIB object 1. The next example "Two switch statuses on one EIB object" illustrates the correct solution.



Two switch statuses on one EIB object: If you click variable 1 on the device home page, the IC 1 EIB writes value 1 to EIB object 1. If you click variable 2 on the device home page, the IC 1 EIB writes value 2 to EIB object 1. A button function resets the values of variables 1 and 2. To do so, the IC 1 EIB writes the constant value "0" to the variables.



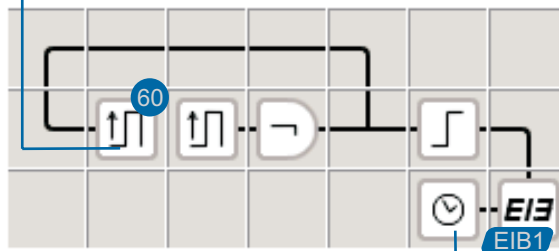
Clock synchronization of an EIS 3 object: If the clock time of an EIB object 1 (EIS3) deviates from the system time of the IC 1 EIB by more than 10s, the IC 1 EIB sends a telegram with the current time to the EIB object 1.



Regular clock synchronization: Every 60 seconds the IC 1 EIB sends a telegram with the current device time to the EIB object 1.

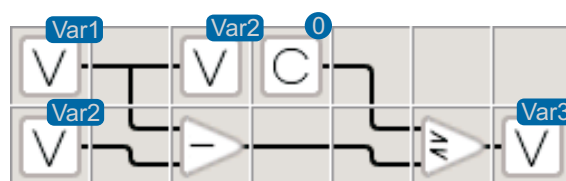
- 60 Monoflop setting: 60 s, not retriggerable

60s, nicht retriggerbar/60s not retriggerable

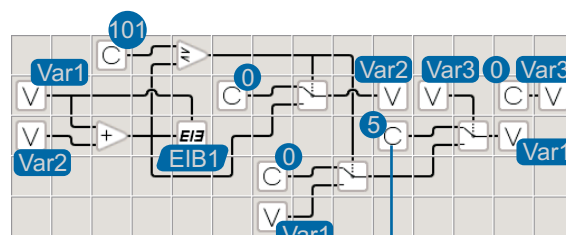


Sekunden seit 0:00Uhr/Seconds since 0:00 a.m.

Alarm mail for defective EIB devices: The EIB device monitoring of the IC 1 EIB (under *Configuration* ⇒ *EIB monitoring*) only generates an alarm message by means of the configurable alarm variable when the first defective EIB device is detected. The macro shown on the right generates an alarm message for every new defective EIB device that the IC 1 EIB detects. The IC 1 EIB signals newly detected defective devices by means of variable 3. In the device monitoring, you have to select variable 1 as alarm variable.



Soft dimmer: If you click the Variable 3 button on the device home page, the IC 1 EIB sends gradually increasing values (between 0 and 100), in definable increments (in this case »5«) to the EIB object 1. A 4Hz cycle is used. If the IC 1 EIB reaches the value 100, the process stops, until you click the Variable 3 button again. A switch-off dimmer can be programmed analogously.



Dimmerschrittweite z.B. 5/Dimmer increment e.g. 5

7. **Registration**

With the IC 1 EIB you can control and monitor the technology in your buildings or facilities. To enable Internet access to your IC 1 EIB, you need to register your device at the www.domoport.com Internet portal. Domoport is an Internet service that directly interacts with the technology of your IC 1 EIB. The portal is available in several major languages. With Domoport you have secure access to your devices: The security standards are similar to those applied in online banking.

In this chapter you will go to the www.domoport.com Internet portal, register your IC 1 EIB and set up your main user account. In your main user account you can easily administrate your IC 1 EIB or even several IC 1 EIB devices.

Accessing the www.domoport.com Internet portal

1 Domoport is multilingual. You can always access the Internet service through the "domoport" domain name. The German version has the top level domain "*.de". The entire Internet address (URL) of the German Domoport portal is thus "http://www.domoport.de". The URL of the international Domoport version in English is "http://www.domoport.com". You can select the desired language via a button on the Domoport home page.

Device connection



Continue as follows to reach your IC 1 EIB devices via any Internet access:

1. Establish a connection with the Internet.
2. Start your Internet browser and enter one of the URLs in the "Domoport top level domains" table. You then reach the Domoport portal page.

Domoport top level domains

Country	Language	URL
International	English	http://www.domoport.com
Germany	German	http://www.domoport.de

WAP access

In addition to the conventional HTML user interface, Domoport also offers an independent WAP user interface. The fast Domoport WAP user interface features a streamlined and user-friendly menu layout that has been specially optimized for WAP browsers on mobile telephones and PDAs. The following table "Domoport WAP URLs" provides the URLs for WAP access to the Domoport Internet portal:

Domoport WAP URLs

Country	Language	URL
International	English	http://www.domoport.com/wap
Germany	German	http://www.domoport.de/wap



To register an IC 1 EIB at the Domoport Internet portal you need a computer with Internet access and Internet browser software (for example MS Internet Explorer or Netscape Navigator).



WAP access to Domoport



Compared to the standard HTML version, the WAP version of the Domoport Internet portal has slightly less functionality. The WAP user interface of the Domoport Internet portal offers the following functionality:

- Login via Domoport.
- Operation of the device home page of the IC 1 EIB.
- Blocking of user accounts.

Registration

- 2** With the IC 1 EIB you can administrate and control sensitive areas of your building technology. Therefore the IC 1 EIB and the Domoport Internet service work with advanced security technology.

This security system effectively prevents unauthorized persons from accessing your IC 1 EIB: Each device has a unique serial number (SN) and PIN (personal identification number). The serial number identifies the device (IC 1 EIB) and the PIN identifies the user of the IC 1 EIB. It is only possible to log in at the IC 1 EIB if the SN and the PIN are correctly entered during the login at the Domoport Internet portal, similar to your mobile telephone.

Registration



Continue as follows to register your IC 1 EIB at the Domoport Internet service:

1. Click *Register now!* on the "www.domoport.com" portal. Domoport displays the Registration of a Domoport main user account with IC 1 EIB device data page.
2. Device data:
Enter the SN, PIN and telephone number of the IC 1 EIB and select a meaningful device name (for example MyHome).
3. Registration:
Enter a meaningful main user name and password (for example Henry.Mustermann).
Note: The main user name is simultaneously the name of the main user account. You cannot change the main user name at a later stage.
4. If you have read the general terms of trade and have accepted, confirm this with the activation of the corresponding checkbox. Click afterwards on *Register*.
5. Click *Next*. Domoport checks your input and saves the data. You have successfully registered your IC 1 EIB at the Domoport Internet service. Now you can use your main user name and password to access your Domoport main user account.



SN and PIN: The SN and PIN is located in the security field on the Domoport registration sheet. The registration sheet is supplied with the IC 1 EIB.

The SN and PIN is only required when the device is registered, thereafter you can specify any user name and password for login purposes.

8.

Appendix

Technical data

Hardware: IC 1 EIB Internet Controller REG-K

Case:	DIN rail (EN50022); 157x86x58 mm (9TE) Type of protection: IP20
Weight:	250 g
Temperature range:	0 °C - 45 °C
Humidity:	90% not condensed
Power supply:	DC 12-29 V; approx. 5 W
Fuse:	F1 T1.6A
Processor:	32-bit RISC; 33 MHz; 16 MB RAM; 2 MB Flash
Internal clock:	DCF77 synchronized via Internet connection
EIB interface:	Twisted pair EIB connection Max. 256 EIB group addresses
USB:	2 USB interfaces (type A) for external video module (only manufacturer's module); max. cable length: 5m
Modem/ISDN/GSM:	1 RJ45 telephone connection for Internet dial-up IC 1 EIB Internet Controller REG-K: Standard version without modem IC 1 EIB Internet Controller REG-K/Analog: Integrated analog modem with 56 kBit/s certified: R&TTE, CTR 21 IC 1 EIB Internet Controller REG-K/ISDN: Integrated ISDN modem with 64 kBit/s certified: R&TTE, CTR 3
Network:	Ethernet interface RJ45 for 10/100 MBit/s;

LED display:	2 LEDs for LAN 1 LED for online status 1 LED for voltage
Certification:	CE
EC directives:	R&TTE directive 73/23/EEC EMC directives: 89/336/EEC EN 50081 EN 55022 EN 55024
Scope of supply:	IC 1 EIB Internet Controller REG-K network cable, 3 m (grey) Network cable/cross cable, 3 m (red) Telephone cable, 3 m, depending on the modem type: Analog, ISDN; GSM type: Magnetic mount antenna, 5 m connection cable Analog type: TAE adapter, for the German market only Assembly instructions Login data with PIN and serial number User manuals in English and German available as PDF files on CD-ROM This is Class A equipment. It can cause radio interference in living areas, in that case the operator has to take suitable measures.

Features

Software: IC 1 EIB Internet Controller REG-K

Visualization of home page:	Controlling and displaying of up to 256 EIB group addresses Supported EIS formats: EIS 1/2/3/4/5/6/7/8/9/10/11/13/14 One-click operation for all functions EIB initialization at system startup 3 address links per object Freely selectable arrangement on the homepage.
Physical device control	Live check of 256 physical EIB addresses Cyclic device polling (30 seconds) Integration into the alarm and event messaging.
Timer:	32 freely programmable timer programs Annual timer for exception days
Alarms and events:	Alarm and event notification for up to 32 e-mail receivers History data, video images as attachment Forwarding for professional alarm notification
History diagram:	Saving of history data for 6 input channels 128000 data objects per channel Display in form of a diagram, PNG image format
Video:	2 video channels (USB) Live video image capturing with an update rate of max. 10s at a resolution of 320x240 Max. image size 640x480 in snapshot mode Video history memory for 128 images Trigger channel for each video signal PG image format

Macro programming:	Up to 16 parallel macros 32 internal program variables (read/write) Powerful visual macro programming Logic, mathematical, comparative and temporal functions
Configuration:	Easy configuration of all settings by means of Internet browser 3 levels of user rights: Administration, user, guest (only viewing) Up to 32 users and 1 guest account can be administrated Automatic time synchronization via Internet in accordance with DCF77 time
Browser:	Microsoft Internet Explorer 5.0 or higher Netscape Navigator 4.7x WAP 1.1 browser Javascript must be activated!
Security:	High security Internet communication via Domoport, 3DES and SSL encryption
TCP ports:	Port 80/81 input 4000 output 5000 input
Language:	German, English (standard), Spanish, Italian, French, Dutch, Danish, Swedish, Norwegian, Finnish (optional)
Miscellaneous:	Log book for system events Online software update Call recognition for analog modem
Optional software tools:	The tools are only available through our website! Update tool: To update to new firmware versions recovery tool: To reset to standard values



Concerning return of goods due to reclamations please contact our Service Center:

Merten GmbH & Co. KG
Electrotechnical system solutions
Service Center
Fritz-Kotz-Straße 8
Industriegebiet Bomig-West
D-51674 Wiehl

Phone: +49 2261 702-204
Fax: +49 2261 702-136
Internet: www.merten.com

For technical information please contact our InfoLine:

Phone: +49 1805 212581 or +49 800 63783640
Fax: +49 1805 212582 or +49 800 63783630
E-Mail: info@info@merten.de