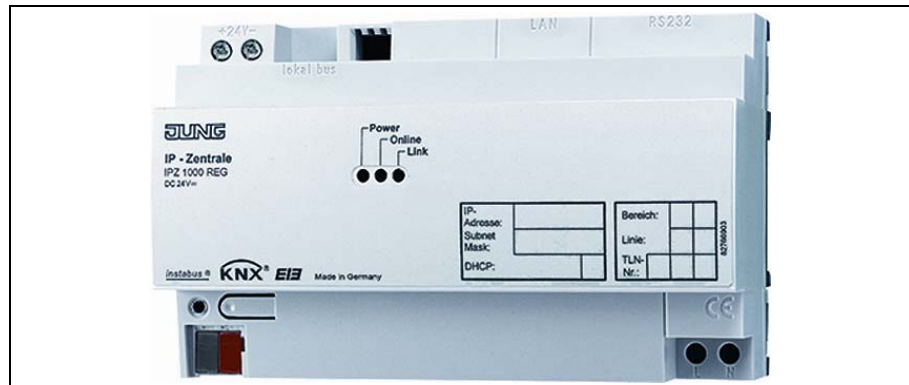## Operating Instructions
IP Central Unit

1. System information

This device is a product of the *instabus* EIB system and complies with EIBA directives. Detailed technical knowledge obtained in *instabus* training courses is a prerequisite to proper understanding. The functionality of this device depends on the software. Detailed information on loadable software and attainable functionality as well as the software itself can be obtained from the manufacturer's product database. Planning, installation and commissioning of the unit is done by means of EIBA-certified software. The latest version of the product database and of the technical descriptions are always available in the Internet under www.jung.de

2. Safety warnings

Attention

Electrical equipment must be installed and fitted by qualified electricians only and in strict observance of the relevant accident prevention regulations. Failure to observe any of the installation instructions may cause fire and other hazards

Important: The present installation instructions are to give a first overview of the use and information on the connection of the IP central unit. A detailed description of the product and configuration of the necessary devices can be found in the respective EIB product documentation.

3. Function

The IP central unit is the interface between the Ethernet LAN (**L**ocal **A**rea **N**etwork) and the *instabus* EIB, and in future also the **e2i** system. With an Ethernet connection, the user has access from the local PC of his LAN or also via the Internet to his *instabus* EIB or to his **e2i** system. The Internet connection can be established via DSL, LAN (RJ45-port) or also with a V90 modem / ISDN-adapter (RS232 port). The IP central unit acts as a server and can be comfortably operated as a central control, reporting

and checking unit with the web browser of a PCs (Microsoft® Internet Explorer from V 5.5 onwards) or other suitable LAN devices as, for instance, a PDA.

4. Characteristics

User-controlled commissioning and configuration assistant, system clock functions, central year timer switch with astro function and day profiles, presence simulation, logic functions, event reporting function via e-mail, integrated e-mail address book, central functions, lightscenes, scenes for HVAC and alarm system applications, etc.
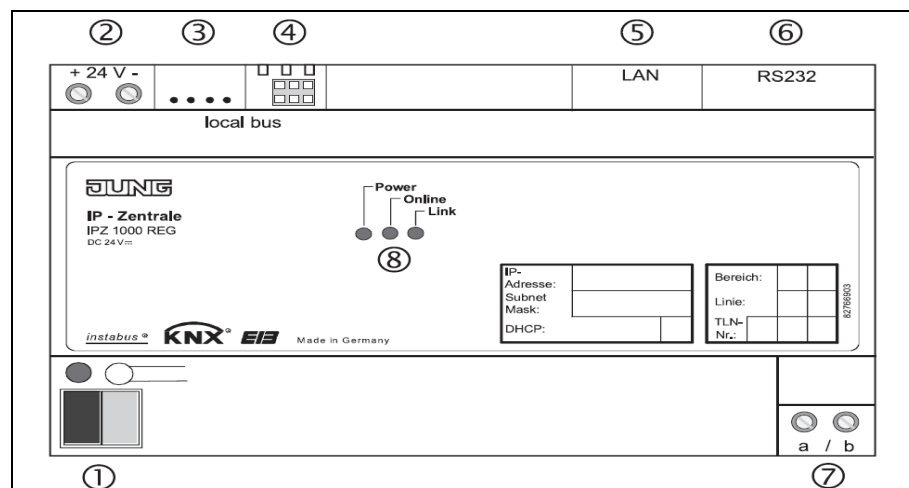
4.1. Directory server

Data exchange with the IP central unit via the Internet requires the use of a directory server. A directory server is a server which can be reached via Internet and which is the interface between a PC and the IP central unit. When accessed from the web browser, a web page of the directory server opening up a portal is first called up. The directory server checks the connection or establishes the connection with the IP central unit. When the connection has been established, access via the open portal to the IP central unit is possible after verification of the access data.

5. Modes of operation

Depending on the existing system equipment, the IP central unit can be operated in different modes.

- operation in an LAN
- operation in an LAN via a dedicated phone line to the Internet
- operation in an LAN with dial-in connection to the Internet and triggering via modem (analog or ISDN)
- operation in an LAN with triggering or a-b port behind a telephone system
- operation in a telephone system with dial-in to the Internet via modem (analog or ISDN)

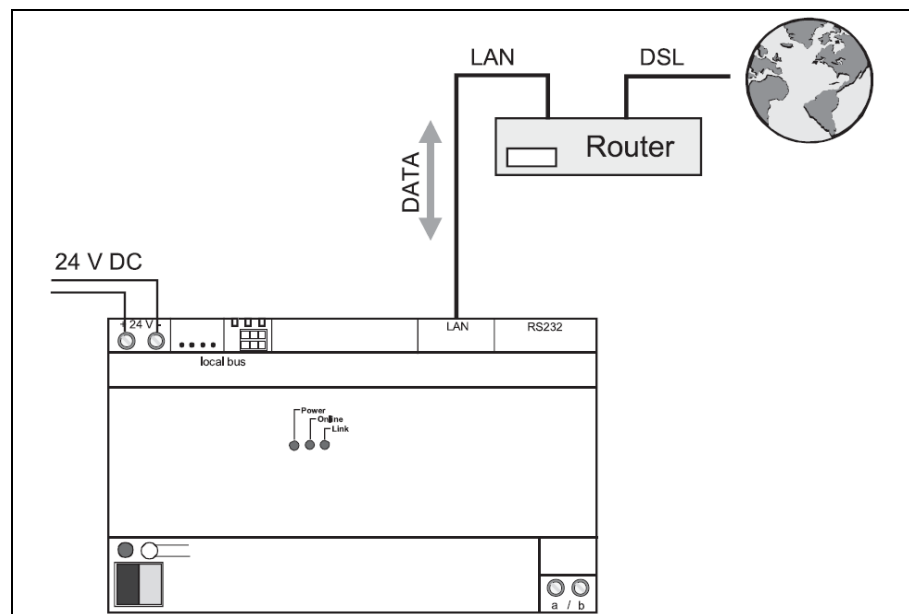The Connection required in each case is shown in the pictures below.

Designation and function of the connecting ports

(1) bus connection terminal for EIB connection

(2) screw terminals for polarity-independent 24 V DC connection, e.g. from the unchoked output of the EIB power supply unit

(3), (4) **e2i** system contacts for future **e2i** applications (presently not supported)

(5) RJ45 socket for LAN connection

(6) 9-pole SUB-D plug for V90 modem or ISDN adapter

(7) screw terminals for a-b trigger input

(8) 3 LEDs:

power (green) => lit up after initialization and presence of 24 V supply voltage

online (yellow) => signals active connection via the RS232 interface

link (yellow) => lit up when connection to LAN (Ethernet connection point, ECP) is established, flickers during data transmission via LAN port
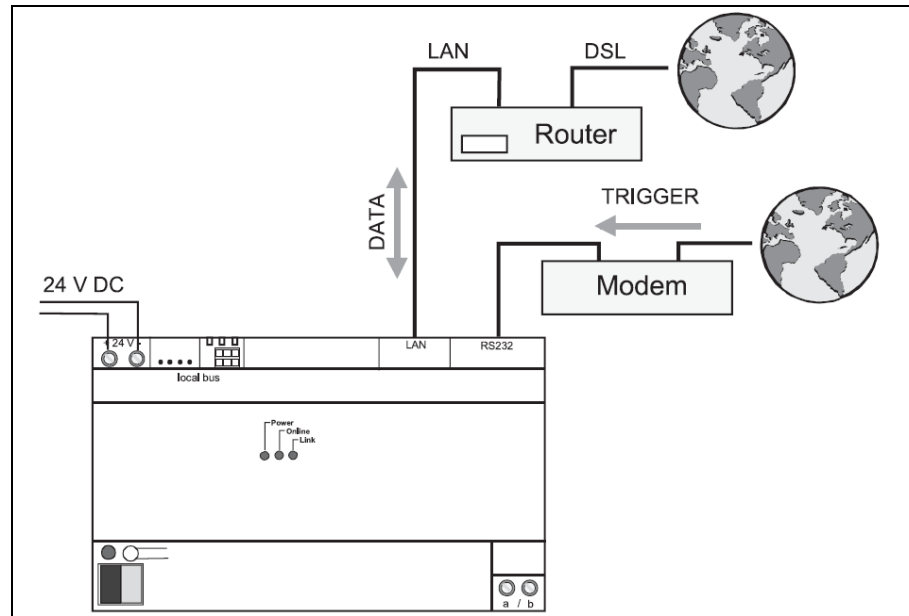
5.1. Operation in LAN

Access to the IP central unit is via a local Ethernet (LAN) from a local PC.
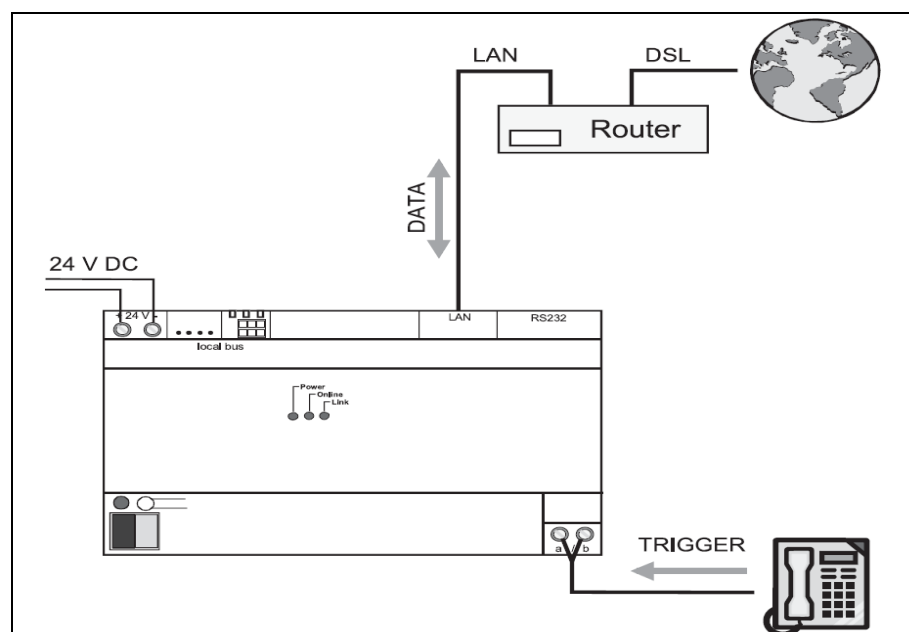
Operation in LAN with dedicated phone line

A local Ethernet (LAN) establishes – e.g. by means of a router – a permanent connection with the Internet. This is useful in the event of a flat-rate tariff. With „keep-alive" telegrams, the IP central unit ensures that the router does not disconnect the link. After a forced disconnection by the service provider, the directory server is informed about the new IP address when the link is reestablished. Access from outside is by means of an external PC and its brower interface after passwort entry via a safe Internet connection. After successful log-in, the web page of the IP central unit appears. The EIB system can then be monitored and operated directly.

Operation in LAN with dial-in, triggering via modem

A local Ethernet (LAN) establishes – e.g. by means of a router – a connection with the Internet **on request**. This type of connection is useful with a time/volume tariff. In the event of an access from outside, e.g. via external PC, the user interface of the browser initiates a trigger request by the directory server to a specific phone number. The trigger request from the directory server via modem/ISDN adapter causes the IP central unit to establish a safe connection to the Internet via LAN and router. As soon as the connection is established, the IP central unit logs in with the directorty server.

Operation in LAN, triggering via a-b port behind telephone system

A local Ethernet (LAN) establishes – e.g. by means of a router – a connection with the Internet **on request**. This type of connection is useful with a time/volume tariff. In the event of an access from outside, e.g. via external PC, the user interface of the browser initiates a trigger request by the directory server to a specific phone number. The trigger request from the directory server via the a-b input of the IP central unit causes the IP central unit to establish a safe connection to the Internet via LAN and router. As soon as the connection is established, the IP central unit logs in with the directory server.
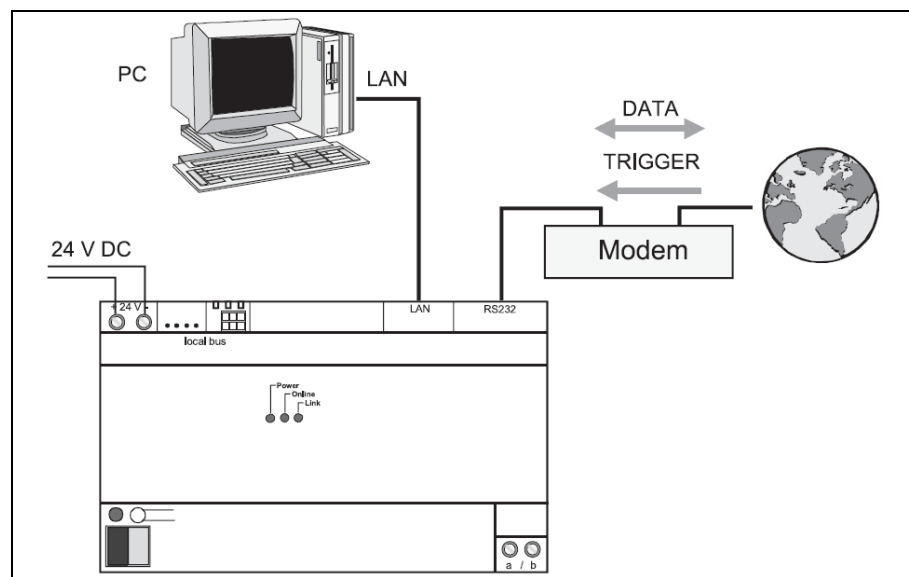
Important: The request from the directory server to the a-b port does not establish a telephone connection so that there are no connection charges. The IP central unit detects the „ringing" signal at the a-b terminals. The calling number is not identified (CLI). For this reason, each call on the connected line will be detected as a trigger signal. IIf this is undesired, a separate MSN can be assigned to the telephone system in an ISDN structure. In an analog structure, a separate connection is necessary in this case.

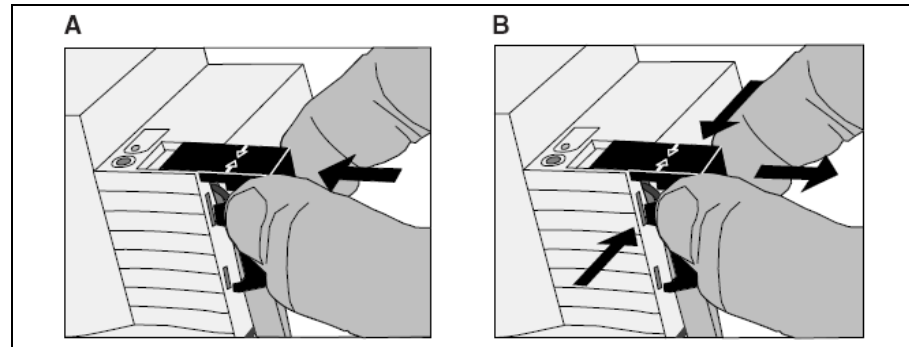## 5.2. Operation in a telephone system

Dial-in into the Internet via the LAN is not possible. The LAN interface thus only offers access via PC, PDA, etc. for browser use. If the IP central unit is to accessed from outside, the directory server must send a trigger signal together with caller identification (CLI) to a specific phone number via the connected modem/ISDN adapter (CLIP function required). The IP central unit identifies the directory server by th transmitted phone number, there is no call set-up. The IP central unit dials in with a service provider via modem/ISDN adapter. As soon as a safe connection with the Internet is established, the IP central unit logs in with the directory server.

Important: After dial-in of the IP central unit into the Internet, telephone charges depending on the specific online tariff will become due.

6. Cap

Slide the cap with the bus wires at the bottom over the bus terminal (fig. A) until it is heard to engage.

To remove the cap, push sideways and withdraw (fig. B).

The cap is available as an accesory (Art. No. 2050 K)

7. Technische Daten

Supply :	21 – 32 V DC, (e.g. via unchoked EIB voltage output)
Power consumption :	ca. 3 W without **e2i**
	ca. 6 W with **e2i**
Connections	
24 V supply :	screw terminals
and a-b trigger input	0.5 –4 mm$_2$ single wire or 0.34 – 4 mm$_2$ stranded wire without ferrule or 0.14– 2.5 mm$_2$ stranded wire with ferrule
instabus EIB :	*instabus* connecting terminal
Ethernet / LAN :	RJ45 socket (10/100 MBit/s Fast Ethernet)
Serial RS232 :	SUB-D plug, 9-pole
e2i (presently not supported)	
external :	**e2i** plug, 4-pole
internal :	**e2i** strip connector, 6-pole
Ambient temperature :	-5 °C … +45 °C
Storage temperature :	-25 °C … +70 °C
Installation width :	144 mm (8 modules)

Technical specifications subject to change

8. Guarantee

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

Please return the unit postage paid to our central service department giving a brief description of the fault:

ALBRECHT JUNG GMBH & CO. KG
Service-Center
Kupferstr. 17-19
D-44532 Lünen
Service-Line: +(49) 23 55 . 80 65 51
Telefax: +(49) 23 55 . 80 61 65
E-Mail: mail.vka@jung.de

General equipment

Service-Line: +(49) 23 55 . 80 65 55
Telefax: +(49) 23 55 . 80 62 55
E-Mail: mail.vkm@jung.de

KNX equipment

Service-Line: +(49) 23 55 . 80 65 56
Telefax: +(49) 23 55 . 80 62 55
E-Mail: mail.vkm@jung.de

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