



enertex bayern gmbh
simulation entwicklung consulting

Manual and Configuration

KNXnet/IP Interface



Note

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Notices

- Installation and assembly of electrical equipment must be performed by qualified electricians.
- When connecting KNX/EIB interfaces skills are provided by KNX™-Training.
- Ignoring the instructions may damage the device as well as causing fire or other hazards.
- This manual is part of the product and must remain with the end user.
- The manufacturer is not liable for any costs or damages incurred by the user or third parties through the use of this device, misuse or malfunction of the connection, malfunction of the device or the subscriber equipment.
- Opening the case or other authorized changes or modifications will void the warranty!
- The manufacturer is not liable for improper use.

Assembly and connection

Requirements:

- One of the following power supplies
 - 20 bis 30 V DC
 - 16 bis 24 V AC
 - „Power over Ethernet“ (IEEE 802.3af), Class 1
 - AUX-Output of the Enertex® KNX PowerSupply 960 if there is no additional KNX choke connected to it
- 10/100 Mbit compatible Ethernet connection
- KNX/EIB bus connection

Commissioning

Boottime is about 2 seconds.

The default network setting ist DHCP.

The default KNX physical address is 15.15.1.

The green LED signalizes LAN activity, the yellow LED signalizes KNX bus activity. If the the red LED is active, device is in programming mode.

Functional Description

- Four independent KNXnet/IP tunnel connections
- LED-signaling for KNX communication, Ethernet communication and programming mode
- Standard configuration with ETS
- Configuration of the tunnel addresses via Telnet

Parameterization

The device can be parameterized with ETS3, ETS4 or ETS5. It supports up to four tunnel connections.

General

Device name You can assign a user-defined name here (up to 30 characters).

IP settings

IP assignment method The IP address can be assigned via DHCP, Manually or Zeroconf.
Parameter: manuell, DHCP, Zeroconf

IP Address (only for manual assignment)

Parameter: valid IP address in your network

Subnet Mask (only for manual assignment)

Parameter: valid subnet mask

Default Gateway (only for manual assignment) (nur bei manueller IP-Adressvergabe)

Parameter: valid IP address in your network

Telnetserver

A integrated Telnet server provides additional functionalities. The default password for Telnet access is „knxnetip“.

factory_reset	Reset the device to factory default and restart
ifconfig	Show IP settings <pre># ifconfig IP.....: 192.168.22.253 Subnet mask...: 255.255.255.0 Gateway.....: 192.168.22.69 NTP server...: 192.53.103.108 Sys multicast.: 224.0.23.12 RT multicast...: 224.0.23.12 Hardware addr.: 00:50:c2:79:30:03</pre> <p>Sys multicast: multicast address for system telegrams RT multicast: multicast address for routing telegrams</p>
logout	Close Telnet session
passwd oldpw newpw passwd oldpw passwd newpw	Change Telnet password (<i>passwd old new</i>), Delete password (<i>passwd old</i>) Set password, if no password is set already (<i>passwd new</i>)
progmode [0 1]	Show programming mode status (without option) or set programming mode (0 = off, 1 = on) <pre># progmode Programming mode: off # progmode 1 Programming mode: on # progmode 0 Programming mode: off</pre>
reboot	Restart device
stats	Show statistics <pre># stats uptime: 1 days, 20:29 KNX communication statistics: TX to IP (all): 384690 (ca. 144 t/m) TX to KNX: 8826 (ca. 3 t/m) RX from KNX: 110487 (ca. 41 t/m) Overflow to IP: 1 Overflow to KNX: 0 TX tunnel re-req: 47</pre> <p>uptime: uptime since last reboot TX to IP (all): number of telegrams sent to IP TX to KNX: number of telegrams sent to KNX bus RX from KNX: number of telegrams received from KNX bus Overflow to IP: number of telegrams, that couldn't be sent to IP Overflow to KNX: number of telegrams, that couldn't be sent to KNX bus TX tunnel re-req: number of telegrams, that had to be repeated during tunnel access</p>
tpconfig	Show KNX parameters <pre># tpconfig KNX bus state.: up KNX address...: 00.01.000 Serial number.: 00-a6-00-00-00-03</pre> <p>KNX bus state: KNX bus detected (up) or not detected (down) KNX address: physical address of the device Serial number: serial number of the device</p>
tunaddr 1..5 address tunaddr reset	Change tunnel address for each tunnel e.g. <i>tunaddr 1 15.15.240</i> or reset tunnel addresses to factory default (<i>tunaddr reset</i>) <pre># tunaddr setall 0.1.240 Setting all tunnel KNX addresses.. 1: New KNX address: 00.01.240 2: New KNX address: 00.01.241 3: New KNX address: 00.01.242 4: New KNX address: 00.01.243 5: New KNX address: 00.01.244 done # tunaddr 1: KNX address: 00.01.240 2: KNX address: 00.01.241 3: KNX address: 00.01.242 4: KNX address: 00.01.243 5: KNX address: 00.01.244</pre>

<pre>tunnel [1..5]</pre>	<p>Show tunnel addresses and connection status (without option), or show detailed information for a specific tunnel (option 1..5)</p> <pre># tunnel Tunnels open: 2/5 1: 00.01.240, closed 2: 00.01.241, open (CCID: 2) 3: 00.01.242, open (CCID: 211) 4: 00.01.243, closed 5: 00.01.244, closed # tunnel 2 Tunnel 2.....: open (CCID 2) KNX address...: 00.01.241 HPAI control...: 192.168.22.249:4808 HPAI data.....: 192.168.22.249:4808 Connect. type.: TUNNEL_CONNECTION TX tun req....: 118537 TX tun re-req.: 0 RX tun req....: 2550 RX tun re-req (identified): 0 RX tun req (wrong seq.)...: 0</pre> <p>CCID: connection id of the tunnel connection KNX address: tunnel address HPAI control: control-end-point of the receiver HPAI data: data-end-point of the receiver Connect. Type: tunnel connection or management connection TX tun req: number of telegrams sent to this tunnel TX tun re-req: number of telegrams that had to be repeated for this tunnel connection RX tun req: number of telegrams received from this tunnel RX tun re-req: number of telegrams that have been received twice for this tunnel connection RX tun req (wrong seq.): number of telegrams with wrong sequence number that have been received for this tunnel</p>
<pre>version</pre>	<p>Show firmware version</p> <pre># version Firmware version: 1.042</pre>

Reset to factory defaults

To reset the device to factory defaults, press and hold the programming mode button for three seconds. When the red LED starts blinking release the button. The device shuts down and will reboot with factory settings automatically.

ETS database

You can download the latest version of the product's ETS database from our homepage:

<http://www.enertex.de/e-downloads01.php>

Technical data

Stromversorgung	16-24 V AC or 20-30 V DC; IEEE 802.3af („Power over Ethernet“)
Power consumption	Max. 1 W
KNX Funktionen	KNXnet/IP tunneling
KNXnet/IP Tunnelling	Up to 35 telegrams per second, up to five tunnel connections