Revox Multiuser KNX Gateway

1 Product description

1.1 Introduction

Voxnet is an Ethernet-based Mulituser / Multiroom audio system developed by Revox with a new, unique operating philosophy and an impressive audio quality. This is characterised by a streaming option at CD level quality and with the smallest latency periods, so that music can be heard in its purest form, with practically no delay, in each room.

Using the Revox KNX Multiuser KNX Gateway, the Voxnet system can be integrated easily into the KNX Building Management application, irrespective of which manufacturer the customer has selected. Thanks to the high level of awareness of the KNX system and the depth of project experience that KNX installers and system integrators have, these days it is a very simple matter to make Revox's audiophile music world accessible to customers.

The Revox Multiuser KNX Gateway serves as the interface between the Revox Multiuser system and KNX. The most frequently used functions are controlled with a simple 1 bit command and appropriate status response messages are available for the basic functions. So for example, switching on the television can activate the Voxnet 219 amplifier with the corresponding input and at the same time, start a light/shutter scene in the KNX world. Various application scenarios for the combination of building technology and Revox are demonstrated in Chapter 2.

1.2   Definitions and terminology explanations

1.2.1   Voxnet Multiuser

Voxnet is a user-based operating concept, i.e. the music follows the user in dynamic, definable listening zones. One user's music is played across several rooms, fully synchronised and in full CD quality.

Once a user registers his user profile in another room, this is automatically linked to the previous one and the same content is then played in both rooms. This automatic group creation by the user should not be confused with the Zone group, through which rooms are grouped into zones using the Configurator. See Chapter *1.2.4 Voxnet zone*.

1.2.2   Voxnet Server

The Voxnet Server is the central unit in the Voxnet Multiuser/ Multiroom audio system. It consists of a Synology NAS (see separate document *Hardware reference for Voxnet*) with the Voxnet Server software. Depending on the expansion level (number of users/streams), different Synology devices can be used.

1.2.3   Voxnet 219 Amplifier / Room

The Voxnet 219 is a stereo amplifier (2 x 50 watt), that provides the sound for a room. A (room) name and a (room) alias can be assigned to each Voxnet 219 in the Voxnet Configurator.
Optionally, each Voxnet 219 can be equipped with an I/O module. This makes 3 audio inputs (analogue, optical, coaxial) and one audio output (PreOut) available. These "local" inputs can also be streamed in other rooms.

1.2.4   Voxnet Zone

Rooms and amplifiers can be grouped together into zones in the Voxnet system. Zones can also overlap, i.e. one room can belong to more than one zones. Zone creation allows, for example, a complete zone to be set to a specific volume level with just one command. Up to 10 different zones are available for room grouping.

1.2.5   Voxnet Configurator

Revox offers a web-based GUI for the configuration of the Voxnet system, the *Voxnet Configurator*, which can be called up through all commonly used browsers such as Firefox, Internet Explorer, Chrome, etc. The Configurator communicates with the Voxnet server that is located on the Synology NAS. All configuration data from the entire Voxnet system is stored there. This includes all Voxnet services, the rights management and the licence server. The Synology NAS can be ordered from Revox in a pre-configured state, including the Voxnet server software.
Note: The KNX configuration is only visible in the Voxnet Configurator in ***Advanced Mode***.

1.2.6   Voxnet Text

Voxnet Text is any easy to read and easy to learn interface that provides a simple and effective way to control the basic Voxnet functions. Individual commands or command strings are also entered and defined in Voxnet Text in the Voxnet Configurator.

1.2.7   Voxnet Action Server

The Voxnet Action Server runs on port 11244 of the Voxnet Server. Third-party devices and/or external controllers can control the Voxnet system using Voxnet Text (IP telegrams) and at the same time debug it, through this Action Server. A connection is established to the Action Server over TCP/IP and Telnet using a terminal program. Recommended terminal programs are PuTTY and TeraTerm.
In order to connect to the server using TCP/IP, the corresponding server IP address is entered into the terminal program and the Action Server port. The port number is defined as port 11244.

1.3   Revox KNX Gateway functional scope

- The Revox KNX Gateway can control up to 10 rooms.
- Up to two gateways can be deployed per Voxnet Server, meaning that a maximum of 20 rooms can be controlled. If necessary, the number of Voxnet Servers can be increased.
- Functions are linked directly with group addresses in the ETS programming software.
- Revox offers a complete database in the ETS for the project management.
- 50 communication objects are currently available for each room, e.g.:
  - Room ON/ OFF incl. status
  - User ON/ OFF incl. status
  - Selection of the User-Streams
  - Selection of the local sources (3 sources on the I/O module, 3 user-favourite streams)
  - Control commands: Next, Previous, and Pause
  - Volume commands: Absolute, Relative ±, Mute, Feedback
  - Timer ON/ OFF (from the Voxnet Server) incl. status
- In addition, 8 (4 x ON/ 4 x OFF) individual actions are available, whose function can be defined in the Revox Server (Configurator).
- The Revox Multiroom System reacts to KNX scene numbers (1 - 64).
- KNX scenes (1 - 64) can be executed from the Revox Multiuser System.
- 8 freely definable KNX actions (1 bit commands) are available in addition to the KNX scenes that can be triggered directly from the Revox world.

1.4 Connection assignment

The Revox KNX Gateway is a rail-mount device with a build-in width of 2TE.
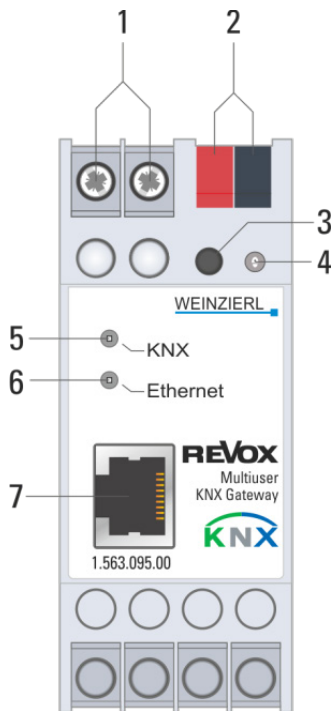
1. Connection for external power supply 12V to 24VAC / 12V to 30VDC *

2. KNX connection with a bus terminal

3. Learn button

4. Learn LED (**red**)

5. KNX LED (**green**):   - lights up when bus voltage is present on KNX

    - flashes in the case of telegram traffic

6. IP LED (**green**):   - lights up when an Ethernet connection is present

    - flashes in the case of telegram traffic

7. RJ45 socket for connection to the LAN (supports PoE**)

 * Only required if no PoE is available over the LAN
 ** Power < 800 mW

1.5 Installation

1.5.1 Safety notes

Electrical devices may only be installed and mounted by a qualified electrician. In doing so, the applicable accident prevention regulations must be observed. Failure to observe the installation instructions can result in damage to the device, fire or other dangers.

> ⚠ **DANGER**
> **Electric shock if live parts are touched. Electric shock may lead to death. Isolate connection cables before working on the device. Cover up live parts in the vicinity.**

Please see the operating instructions enclosed with the device for more information.

1.5.2 Mounting

Snap it on to the top-hat rail as per DIN EN 60715, vertical mounting; network connections must face upward.
A KNX data rail is not required; the connection to KNX-TP is established using the accompanying bus connection terminal.
Observe temperature range (-5 to +45 °C); do not install over heat-emitting devices and ensure sufficient ventilation/cooling if necessary.

1.5.3 Electrical Connection

KNX-TP
Connect the KNX-TP bus line to the KNX connection of the device using the KNX bus connection terminal supplied (black / red). The bus line must be led to near the device terminal with the sheathing intact. Bus line leads without sheathing (SELV) must be installed isolated in such a way that they are securely protected from all non-safety-low-voltage lines (SELV/PELV) (comply with ≥4 mm spacing or use cover; see also VDE regulations on SELV (DIN VDE 0100-410/"Secure isolation", KNX installation specifications)!

Power supply
    External power supply without PoE
    Connecting the external power supply (12V to 24 VAC~ / 12V to 30 VDC=) to the power supply connection (1) of the device using a KNX device connection terminal, preferably yellow/white. There is **no polarity** for this connection, which means that a DC supply (=) can be connected up in any way.

    Power supply with PoE
    If the deployed router / switch has a PoE (Power over Ethernet) function, the external power supply can be dispensed with. In this case, the connecting terminals for the external power supply (1) remain unused.

Note: Both the external power supply and the PoE adapter
       should be able to provide power of 800 mW.

Ethernet connection
Connection of the IP network cable (RJ45) with the device's network connection (7). The Ethernet connection supports PoE - see Power supply.

1.6   Factory settings reset

The factory-set configuration is as follows:
  - Physical device address: **15.15.255**
  - Configured KNXnet/IP tunnelling connections: **1**
  - Physical address of the tunnelling connection: **15.15.250**
  - IP address assignment: **DHCP**

The device can be reset to these factory settings.

Factory settings reset:
1.   Disconnect the device from the power (external power supply (1) or PoE).
2.   Press and hold the learn button (3).
3.   Restore the power to the KNX Gateway.
4.   Hold the learn button (3) pressed down for at least a further 6 seconds.
5.   A successful reset to factory settings is indicated by all the LEDs (4, 5, 6) flashing briefly.
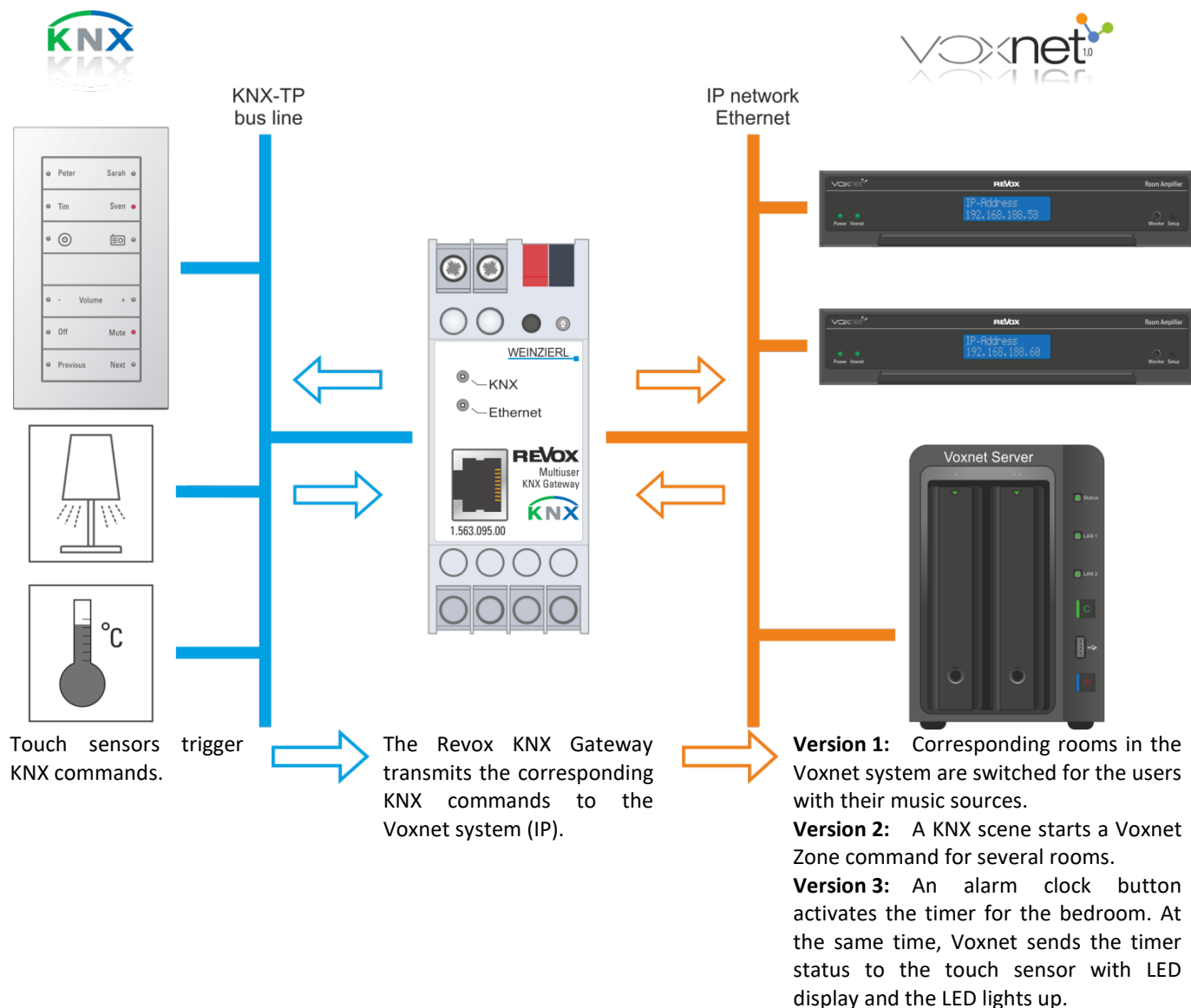
2 Installation environment

2.1 Standard cabling

The picture below shows part of a standard cabling with the Revox KNX Gateway. On the left are the KNX components, e.g. touch / temperature sensors, switching / dimming actuators and on the right, the Ethernet Voxnet components, e.g. Voxnet 219 Amplifier and Voxnet Server. For reasons of clarity, essential Ethernet and/or KNX components such as switches, routers or power supply units are not shown in this picture.

2.2 Application scenarios

2.2.1 Standard cabling with typical applications

Touch sensors trigger KNX commands.

The Revox KNX Gateway transmits the corresponding KNX commands to the Voxnet system (IP).

Version 1: Corresponding rooms in the Voxnet system are switched for the users with their music sources.
Version 2: A KNX scene starts a Voxnet Zone command for several rooms.
Version 3: An alarm clock button activates the timer for the bedroom. At the same time, Voxnet sends the timer status to the touch sensor with LED display and the LED lights up.

The KNX scene X dims the lights in the lounge, using the dimming actuator.

The Revox KNX Gateway transmits the corresponding Voxnet command to the KNX system over IP.

An audio signal from the television is detected at the Voxnet amplifier optical input. The amplifier's audio trigger activates a KNX scene X over Voxnet Text and switches the Voxnet 219 Amplifier on at the same time.

2.2.2 Intelligent door communication with Voxnet
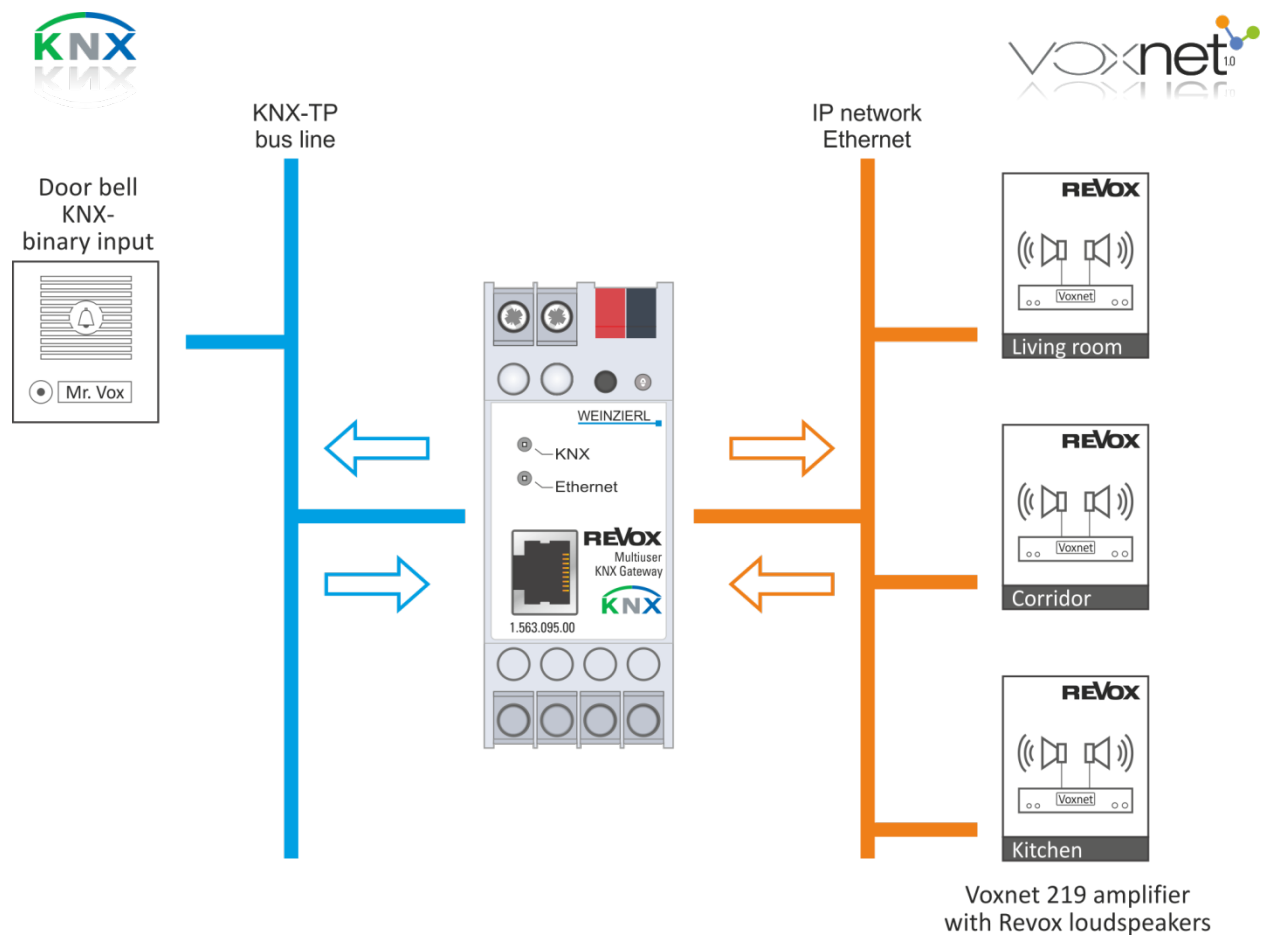
The bell sensor reports that the bell-push has been pressed.

The Revox KNX Gateway transmits the corresponding KNX commands to the Voxnet system (IP).

The music that is playing in all the active rooms is muted so that the bell can be heard by all.

2.2.3 "Arrive - Depart" house scene with Voxnet

Voxnet 219 amplifier
with Revox loudspeakers
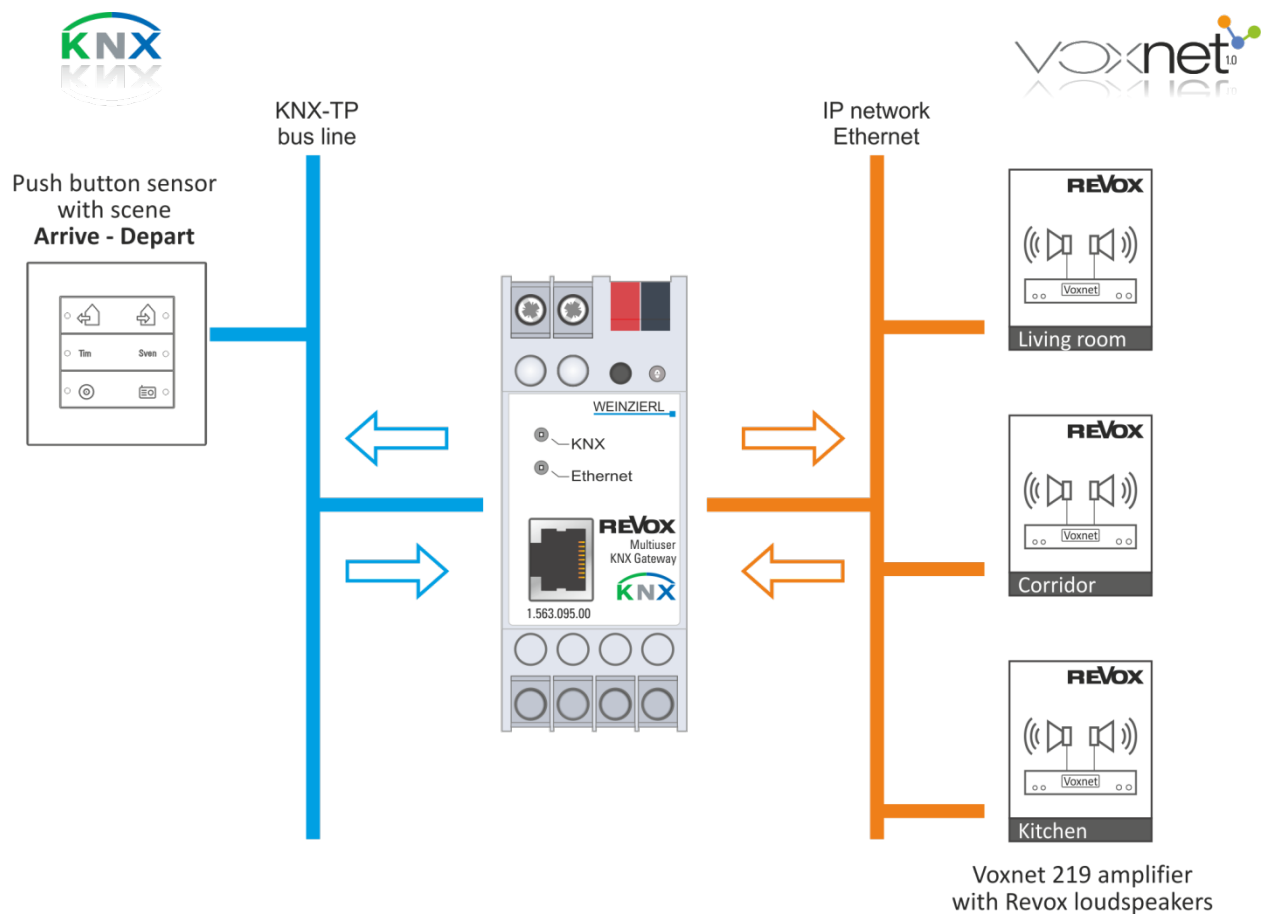
A touch sensor in the corridor triggers the **Arrive/Depart** scene.

The Revox KNX Gateway transmits the corresponding KNX commands to the Voxnet system (IP).

With the KNX **Arrive** scene, certain rooms are activated anonymously with a preferred music source.

With the KNX **Depart** scene, all rooms / Voxnet amplifiers are switched off with the "System Off" command.
Note: This command also affects rooms that are not listed in the Voxnet *Configurator* in the *KNX Room List*.

3 Voxnet Configurator

Revox offers a web-based GUI for the configuration of the Voxnet system, the Voxnet *Configurator*, which can be called up through all commonly used browsers such as Firefox, Internet Explorer, Chrome, etc. The Configurator communicates with the Voxnet server that is located on the Synology NAS. All configuration data from the entire Voxnet system is stored there. This includes all Voxnet services, the rights management and the licence server. Voxnet Servers are sold exclusively through the Revox Company.

The Voxnet Configurator is described in detail in a separate manual. This part of the Configurator description only contains those areas that are relevant for the KNX Gateway.

3.1 KNX area overview

The KNX configuration is only visible in the Voxnet Configurator in **Advanced Mode**. For this purpose, activate the *Advanced* button in the Task bar. The two possible KNX areas are shown with the KNX identifier **K** in the KNX area, even if no KNX Gateway is actually present / connected. This means that a Voxnet system can already be set up for the KNX Gateway, ahead of time. It is also possible to use Gateway setups from other Voxnet projects through the Import / Export function. The *Voxnet Identifier* MAC address originates from the Voxnet Server that makes the KNX service available. If there are several Voxnet Servers in the system, a multiple of the 2 KNX services is always visible.

Voxnet Identifier	**K 00 11 32 4C E4 C3 0**
Prefix	U = User
	R = Room
	S = Source
	X = Timer
	P = Proxy
	T = Trigger
	K = KNX Gateway
MAC Address	00 11 32 4C E4 C3
Index number (hex)	0 = First KNX service
	1 = Second KNX service

Voxnet Configurator
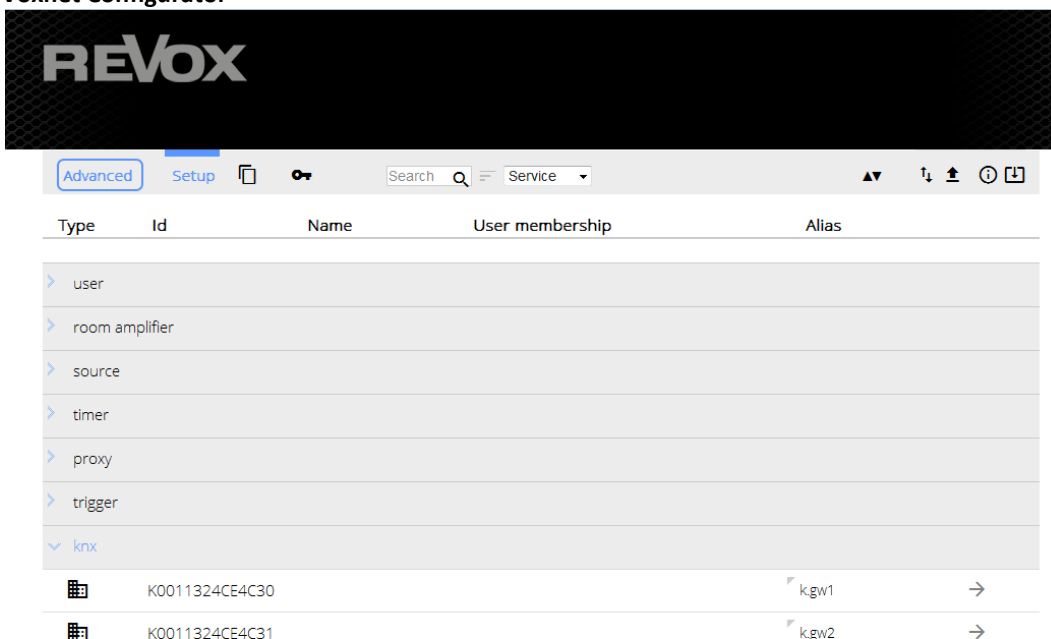
3.2   Alias / Gateway IP /Enable

The KNX Gateway is registered in the Configurator on the following pages. To start with an **Alias** is assigned that simplifies the assignment / identification. If the Gateway function is not yet active **[Enable: NO]**, this can now be done **[Enable: YES]**.

Address : IP address of the Revox KNX Gateway. This is set up using the ETS or can be searched for in the network with the Revox KNX Finder - see Chapter General IP Settings.

Voxnet Configurator
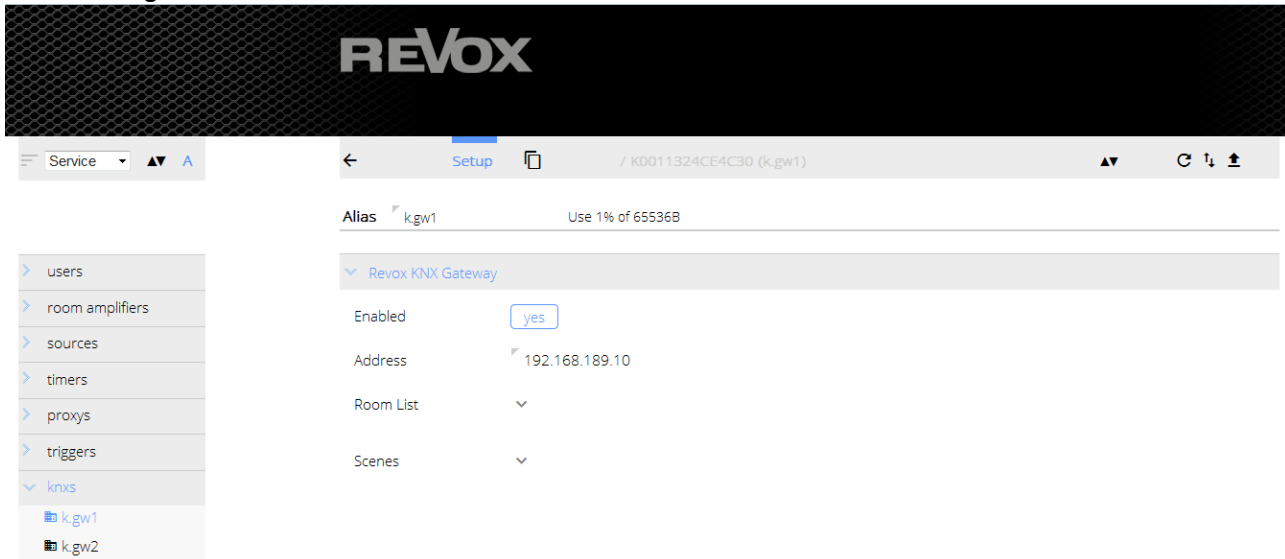
3.3 Room list (Custom Actions)

Room List: All the rooms (Voxnet 219 Amplifiers) that should be controlled over KNX are defined by the installer in the *Room List*. In terms of the room numbers, this Room List (Configurator) must be identical to the room list in the ETS because this room numbering is used for the selection and execution of *Customer Actions*. *Note:* It is possible to control more rooms than those that can be controlled by one or two gateways in a Voxnet system. This means that it is possible to install 24 Voxnet 219 Amplifiers but only to control 10 rooms with a KNX Gateway.

Custom Action: 4 *Custom Actions* with ON/ OFF functionality are available in each room. The *Custom Actions* can be used for functions for which there is no K object, e.g. for Voxnet Proxy commands.
In the example shown below (green box), the communication object *Custom Action 1 ON* triggers the Proxy command *$p.loewetv:power_on*. **Voxnet Text** is the programming language used to create the *Customer Actions*. This is described briefly in Chapter 4 and in detail in a separate Operating manual.

Note: A maximum of 10 rooms can be defined per Gateway.

ETS Communication objects

Data type:	Comment:	ETS parameters:	Description
Binary - 1 Bit	1=ON action	Advanced configuration	Custom Action 1 **ON**
Binary - 1 Bit	0=OFF action	Advanced configuration	Custom Action 1 **OFF**
Binary - 1 Bit	1=ON action	Advanced configuration	Custom Action 2 **ON**
Binary - 1 Bit	0=OFF action	Advanced configuration	Custom Action 2 **OFF**
Binary - 1 Bit	1=ON action	Advanced configuration	Custom Action 3 **ON**
Binary - 1 Bit	0=OFF action	Advanced configuration	Custom Action 3 **OFF**
Binary - 1 Bit	1=ON action	Advanced configuration	Custom Action 4 **ON**
Binary - 1 Bit	0=OFF action	Advanced configuration	Custom Action 4 **OFF**

Voxnet Configurator

3.4   Scene list

Scenes: There are 64 scene commands in the KNX system that can be transmitted to the Voxnet System over the Revox KNX Gateway. Currently, Voxnet Text commands can be stored for a maximum of 8 KNX scenes that are then triggered when a KNS scene command is received. The **Scene No.** is identical with the scene number from the KNX system.

In the example below, the Lounge is switched on with the analogue input when scene 32 is started in the KNX system.

ETS Communication objects

Data type:	Comment:	ETS parameters:	Description
Binary - 1 Bit	1…64	Standard configuration	Scene receive

Voxnet Configurator

* Maximal number of list items is 8. Current number is 2.

4 Voxnet Text

Voxnet is any easy to read and easy to learn interface that provides a simple and effective way to control the basic Voxnet functions. Individual commands or command strings are entered and defined in Voxnet text in the Voxnet Configurator.
Voxnet Text is described in detail in a separate manual. This part of the Voxnet Text description only contains those areas that are relevant for the KNX Gateway.

4.1 Voxnet triggers KNX scenes

KNX scenes (1 - 64) can be triggered with Voxnet.

For this purpose, the following Voxnet Text command is sent: **$knx:scene:x**   **x= 1.....64**

ETS Communication objects

Data type:	Comment:	ETS parameters:	Description
Binary - 1 Bit	1…64	Standard configuration	Scene send

This command can either be triggered over a Voxnet Trigger or Timer and this of course, from any system that can send this Voxnet Text command.

4.2 Voxnet triggers KNX commands

8 programmable "KNX Actions" are available, which through a corresponding link with a KNX actuator in the ETS can, for example, switch lighting on.

For this purpose, the following Voxnet Text command is sent: **$knx:switch:x:y**   **x=1....8, y=on/off/toggle**

As a result, a 1 bit command is triggered at each KNX group address, e.g. light on/off, shutter up/down, etc.

ETS Communication objects

Data type:	Comment:	ETS parameters:	Description
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 1
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 2
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 3
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 4
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 5
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 6
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 7
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 8

These commands can either be triggered over a Voxnet Trigger or Timer and this of course, from any system that can send this Voxnet Text command.

5   Integration in the ETS

5.1   Communication objects

In order to make the linking of communication objects as simple as possible, there is a preconfigured library for the Revox KNX Gateway that can be loaded directly into the ETS.
Then the C objects are given a fixed assignment and only have to be linked with the corresponding sensors or actuators.

5.1.1   Room-independent C objects

These C objects contain a global System OFF command that operates across rooms, the evaluation of the KNX scenes 1 - 64 and 8 KNX actions.

ETS Communication objects

Data type:	Comment:	ETS parameters:	Description
Binary - 1 Bit	1=select function, 0=no action	Standard configuration	System Off
Binary - 1 Bit	1…64	Standard configuration	Receive Scene
Binary - 1 Bit	1…64	Standard configuration	Send Scene
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 1
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 2
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 3
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 4
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 5
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 6
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 7
Binary - 1 Bit	Action from Revox	Standard configuration	KNX Action 8

System OFF
This Voxnet command switches all rooms in the Voxnet System off including those that are **not** controlled/ addressed over the Revox KNX Gateway. The Revox KNX Gateway can control 10 Voxnet rooms, whereby a maximum of 2 Gateways per Voxnet Server can be used.

Receiving KNX scenes 1 - 64
The Gateway allows Voxnet to participate in up to 8 KNX scenes. The scene number is freely definable (1 - 64). This allows Voxnet to be integrated in KNX scenes. What is actually triggered is programmed through Voxnet Text in the Voxnet Configurator.

Sending KNX scenes 1 - 64
Voxnet can trigger KNX scenes (0 - 64). The corresponding Voxnet Text command is: $knx:scene:x   x= 1.....64

KNX Actions
8 programmable "KNX Actions" are available per Gateway. Command: $knx:switch:x:y   (x=1....8, y=on/off/toggle). As a result, a 1 bit command can be triggered at each KNX group address, e.g. light on/off, elevator up/down, etc.

5.1.2 C object room groups

The room-related C objects are grouped together in groups of up to 50 C objects, which in turn refer to one of the 10 rooms.

The Communication Objects highlighted in grey are only available in the "Advanced" ETS Room setting, not on the "Standard" setting.

Data type:	Comment:	ETS parameters:	Description
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Room On/Off
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Room Status
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Select User 1/ Room Off
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Select User 1 Status
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Select User 2/ Room Off
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Select User 2 Status
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Select User 3/ Room Off
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Select User 3 Status
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Select User 4/ Room Off
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Select User 4 Status
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Select User 5/ Room Off
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Select User 5 Status
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Select User 6/ Room Off
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Select User 6 Status
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Select User 7/ Room Off
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Select User 7 Status
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Select User 8/ Room Off
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Select User 8 Status
Binary - 1 Bit	1=select function, 0=no action	Standard configuration	Userstream Radio
Binary - 1 Bit	1=select function, 0=no action	Standard configuration	Userstream Music
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Userstream Service 3
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Userstream Service 4
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Analog Input (Room)
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Coaxial Input (Room)
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Optical Input (Room)
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Aux (Room)
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Analog Input (User)
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Coaxial Input (User)
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Optical Input (User)
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Aux (User)
Binary - 1 Bit	1=Next, 0=Previous	Standard configuration	Next/Previous
Binary - 1 Bit	1=select function, 0=no action	Advanced configuration	Pause
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Mute On/Off
Dimm- 4 Bits	Dimm function	Standard configuration	Volume relative
Value - 1 Byte	0....255	Standard configuration	Volume value
Value - 1 Byte	0....255	Standard configuration	Volume value status
Binary - 1 Bit	1= ON action , 0= OFF action	Advanced configuration	Custom Action 1*
Binary - 1 Bit	1= ON action , 0= OFF action	Advanced configuration	Custom Action 2*
Binary - 1 Bit	1= ON action , 0= OFF action	Advanced configuration	Custom Action 3*
Binary - 1 Bit	1= ON action , 0= OFF action	Advanced configuration	Custom Action 4*
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Timer Event 1 On/Off
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Timer Event 1 Status
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Timer Event 2 On/Off
Binary - 1 Bit	1=On, 0=Off	Standard configuration	Timer Event 2 Status
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Timer Event 3 On/Off
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Timer Event 3 Status
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Timer Event 4 On/Off
Binary - 1 Bit	1=On, 0=Off	Advanced configuration	Timer Event 4 Status

* 4 user-defined actions are available per room, which are defined in the Voxnet *Configurator / Room List* - see Chapter 3.3 Room List (Custom Actions).

5.2   Finding the Revox Gateway in the network

The IP number of the Revox Gateway can be searched for in the network using the *KNX_Gateway_Finder*, in order to determine the IP address. You just have to start the small Gateway Finder program. This program can be downloaded for free from the Revox support homepage. The search is started by clicking on the *Scan* button. After a short time the identified devices are displayed. The example below shows a Gateway that has been found. Other properties are shown in addition to the IP address:

- Application ID
- Application Version
- Firmware Version
- Gadget Status (Mini-visualisation for Windows Desktop)


5.3   Setting up the Revox Gateway

After the Revox Gateway has been imported into the ETS, the basic Ethernet interface settings can be made. You will find the Gateway library both on the Revox GmbH Homepage (www.revox.com) and on the website of the Weinzierl Company (www.weinzierl.de/index.php/de/.)

5.3.1   General IP settings

Device name: Specific device name that allows a unique differentiation between devices when several Revox Gateways are in use.

Default name: KNX Revox Gateway

IP address assignment: Access type, either automatically over DHCP or manually. It is recommended that you assign the IP data manually as the explicit address of the Voxnet Gateway has to be used in the Voxnet Configurator. If you are using DHCP, there is no guarantee that the same IP address will be assigned by the router on every occasion.
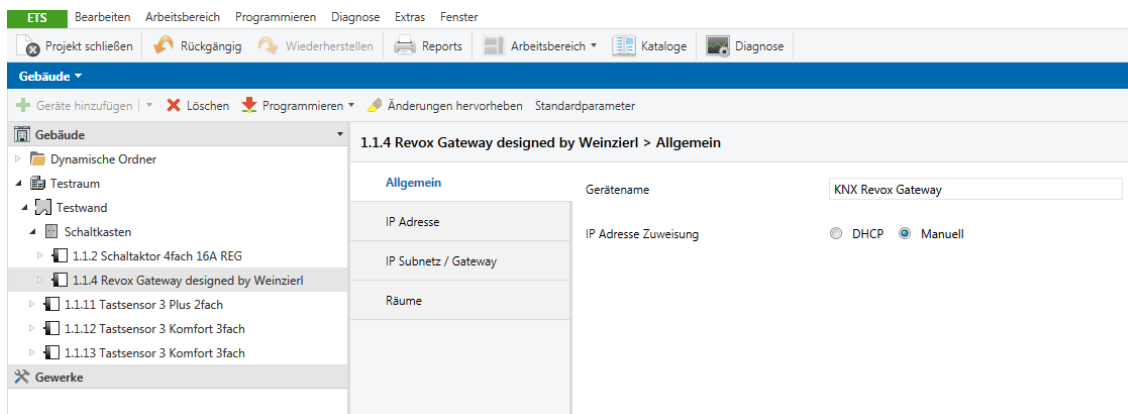
5.3.2 IP address

IP address byte 1 - 4   Manual input of the 4 blocks that make up the IP address. This menu only appears if *manual* was selected in the **General** settings. When selecting the IP address, make sure that it doesn't fall within the DHCP range and that no other network device is using the same address.
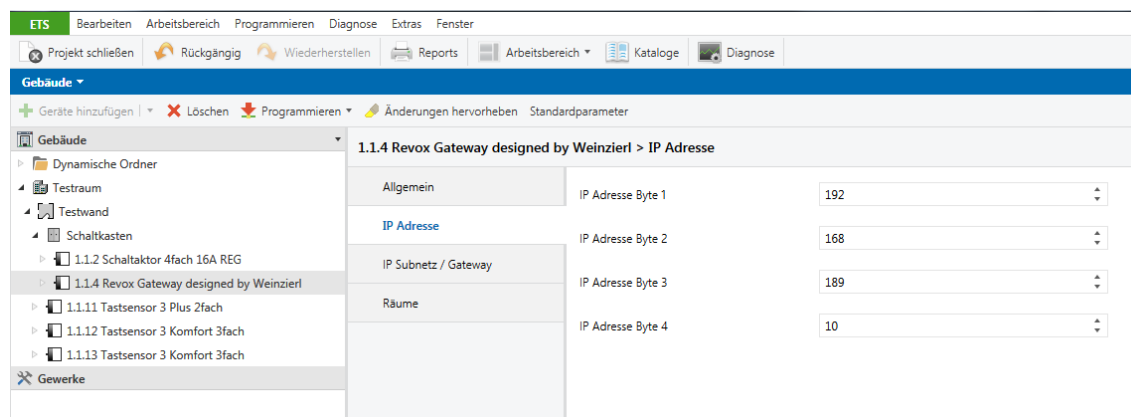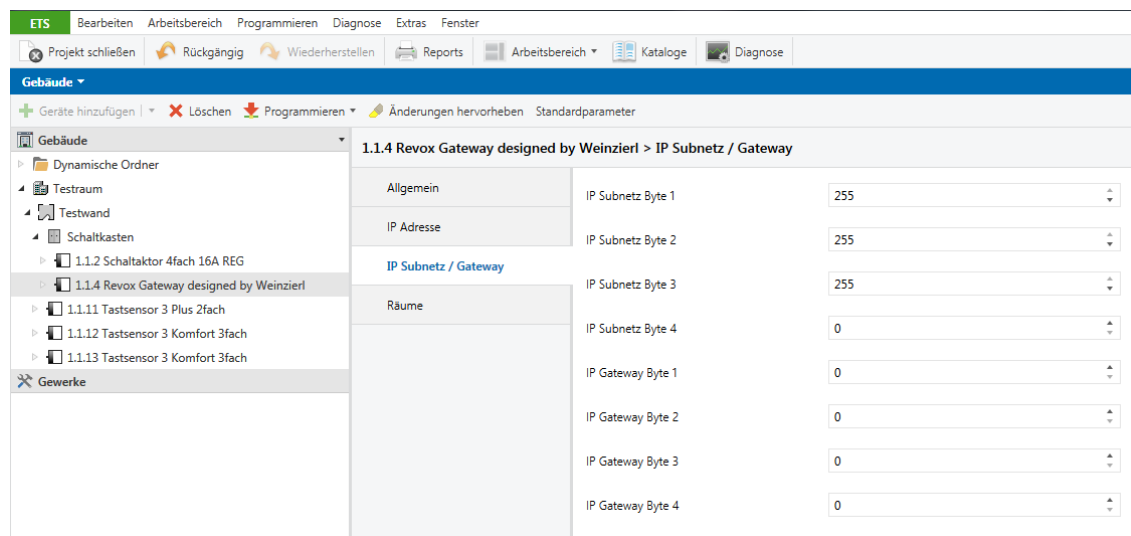

5.3.3 IP Subnet / Gateway

IP Subnet byte 1 – 4:   Manual input of the 4 blocks that make up the IP Subnet Mask. Typical setting: 255. 255. 255. 0

IP Gateway byte 1 – 4:   Manual input of the 4 blocks that make up the Internet Gateway in the www.
Note: *The Gateway referred to here is not the Revox Gateway.*

5.3.4 Rooms

Rooms: Activation of the Voxnet rooms that should be included in the KNX control. This frees up the corresponding communication objects for the corresponding room and displays them in the C Object List with the assigned room number. A maximum of 10 rooms are available per Revox KNX Gateway. There can be gaps in the Room list, i.e. there can also be areas with deactivated rooms between the active rooms.

- Deactivated: The corresponding room is not part of the KNX control.
- Standard: Only one part of the C Objects is available for the KNX control in the Standard setting, e.g. only 4 of the maximum 8 users. This artificial limitation on the basic commands only serves to improve clarity and has no technical background.
- Advanced: All C Objects are available (see Table)

5.4   Object linking in the ETS

After all the basic settings have been made, the final step is to create the links between the KNX sensors and the Revox KNX Gateway's C Objects. The figure below shows the linking of a key switch with the switch-on command for the analogue input in the lounge.

Note: The analogue input command is only available with the "Advanced" room setting.

6   Technical data

Electrical safety
- Protection (acc. EN 60529): IP 20
- Safety extra low voltage SELV DC 29 V

CE marking according to
- Low Voltage Directive 2006 / 95 / EC
  EN 50491-3: 2009, EN 50491-5-1: 2010,
  EN 50491-5-2: 2010, EN 50491-5-3: 2010
- EMC Directive 2004 / 108 / EC
  EN 61000-6-2: 2005,
  EN 61000-6-3: 2007 + A1: 2011
- RoHS Directive 2011 / 65 / EU
  EN 50581: 2012

*CE declaration can be requested at info@weinzierl.de.

Environmental requirements
- Ambient temp. operating: - 5 ... + 45 °C
- Ambient temp. non-op.: - 25 ... + 70 °C
- Rel. humidity (non-condensing): 5 % … 93 %

Mechanical data
- Housing: Plastic
- DIN rail mounted device, width: 2 units
- Weight: approx. 100 g

Operating controls
- Learning key for KNX

Indicators
- Learning-LED (red)
- Signal-LED (green) for KNX
- Signal-LED (green) for LAN

Ethernet
- 10BaseT (10Mbit/s)

Power supply
- External supply 12-24 V AC / 12-30 V DC
- Alternative: "Power over Ethernet"
- Power consumption: < 800 mW

Connectors
- KNX connection terminal
- LAN RJ-45 socket
- Screw connector for power supply

Manufacturer:
Weinzierl Engineering GmbH
D-84508 Burgkirchen / Alz
Germany
http://www.weinzierl.de
info@weinzierl.de

7 License agreement Revox KNX gateway software

Hereinafter are the contract terms for your use of the software as the "Licensee". By accepting this agreement and installing the Revox KNX gateway software or putting the Revox KNX gateway software into use, you conclude an agreement with Revox GmbH and agree to be legally bound to the terms of this agreement.

7.1 Definitions

Licensor: Revox GmbH, Am Krebsgraben 15, 78048 VS-Villingen, Germany.
Licensee: The legal recipient of the Revox KNX gateway software.
Firmware: Software which is embedded on the Revox KNX gateway hardware and enables operation of the Revox KNX gateway.
Revox KNX gateway software: The Revox KNX gateway software designates all of the software provided for the Revox KNX gateway product, including the operating data. This includes, in particular, the firmware and the product database.

7.2 Object of the agreement

The object of this agreement is the Revox KNX gateway software provided on data media or through downloads, as well as the corresponding documentation in written and electronic form.

7.3 Rights of use of the Revox KNX Gateway-Software

The Licensor grants the Licensee the non-exclusive, non-transferable right to use the Revox KNX gateway software for an unlimited time in accordance with the following conditions for the purposes and applications specified in the valid version of the documentation (which shall be provided in printed form or also as online help or online documentation).
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The Revox KNX gateway software and the documentation (which shall be provided in printed form or additionally as online help or online documentation) shall be provided to the licensee in the respective valid version. The warranty period for the Revox KNX gateway software is 12 months. During this time, the licensor shall provide the following warranty:
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- The software shall function in accordance with the documentation included with it in the respective valid version.
- The software shall be executable on the computer stations specified by the Licensor.

The warranty shall be fulfilled with the supply of spare parts.

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7.8 Applicable law

This agreement is subject to the laws of the Federal Republic of Germany. The place of jurisdiction is Freiburg.

7.9 Termination

This agreement and the rights granted herein shall end if the Licensee fails to fulfil one or more provisions of this agreement or terminates this agreement in writing. The Revox KNX gateway software and the documentation turned over (which is provided in printed form or also as online help or online documentation) including all copies shall in this case be returned immediately and without being requested to do so. No claim to reimbursement of the price paid shall be accepted in this case.

The license for use of the Revox KNX gateway software shall expire upon termination of the agreement. In this case, the Revox KNX gateway product must be taken out of operation. Further use of the Revox KNX gateway without a license is precluded.

The commissioning software and visualisation software must be uninstalled and all copies must be destroyed or returned to the Licensor.

7.10 Subsidiary agreements and changes to the agreement

Subsidiary agreements and changes to the agreement shall only be valid in writing.

7.11 Exception

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