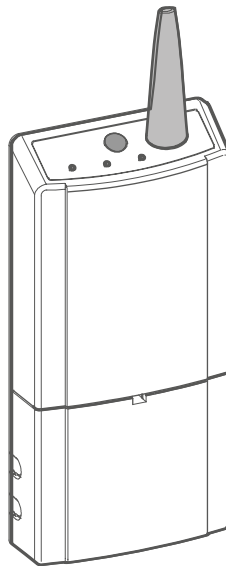


Operating and assembly instructions  
Application description

# KNX building management system Media coupler



KNX media coupler  
**TR131N**



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### 1 Introduction

These instructions describe the safe and correct installation and commissioning of the KNX media coupler. These instructions are provided as information in addition to the product.

Symbols used

☑ Requirement. This requirement must have been met before continuing with the next assembly step.

• Single-step instruction or any sequence.

| Multi-step instruction. Sequence must be observed.

– List

► Reference to additional documents/information











	Scope of delivery		Installation by a qualified electrician		For further information on configuring the device, refer to the application manual
	KNX-certified		Supports KNX Data Secure		
	Compatibility with KNX S-mode (ETS)		Compatibility with Hager Easytool		
	Suitable for use throughout Europe and Switzerland		Manufacturer's information is in accordance with § 18 Para. 4 of the German Electrical and Electronic Equipment Act		Suitable for use in England, Wales and Scotland

Table 1: Symbols used

## 2 Safety instructions

Electrical devices may only be installed and assembled by a qualified electrician in accordance with the relevant installation standards, guidelines, regulations, directives, and safety and accident prevention regulations of the country of installation.

**Danger due to electric shock. Disconnect before working on the device. Take into account all circuit protection devices that supply dangerous voltages to the device.**

**Failure to comply with these installation instructions may result in damage to the device, fire or other dangers.**

**The device is not suitable for applications in the field of safety technology, such as emergency stops or emergency calls.**



### 3 Scope of delivery

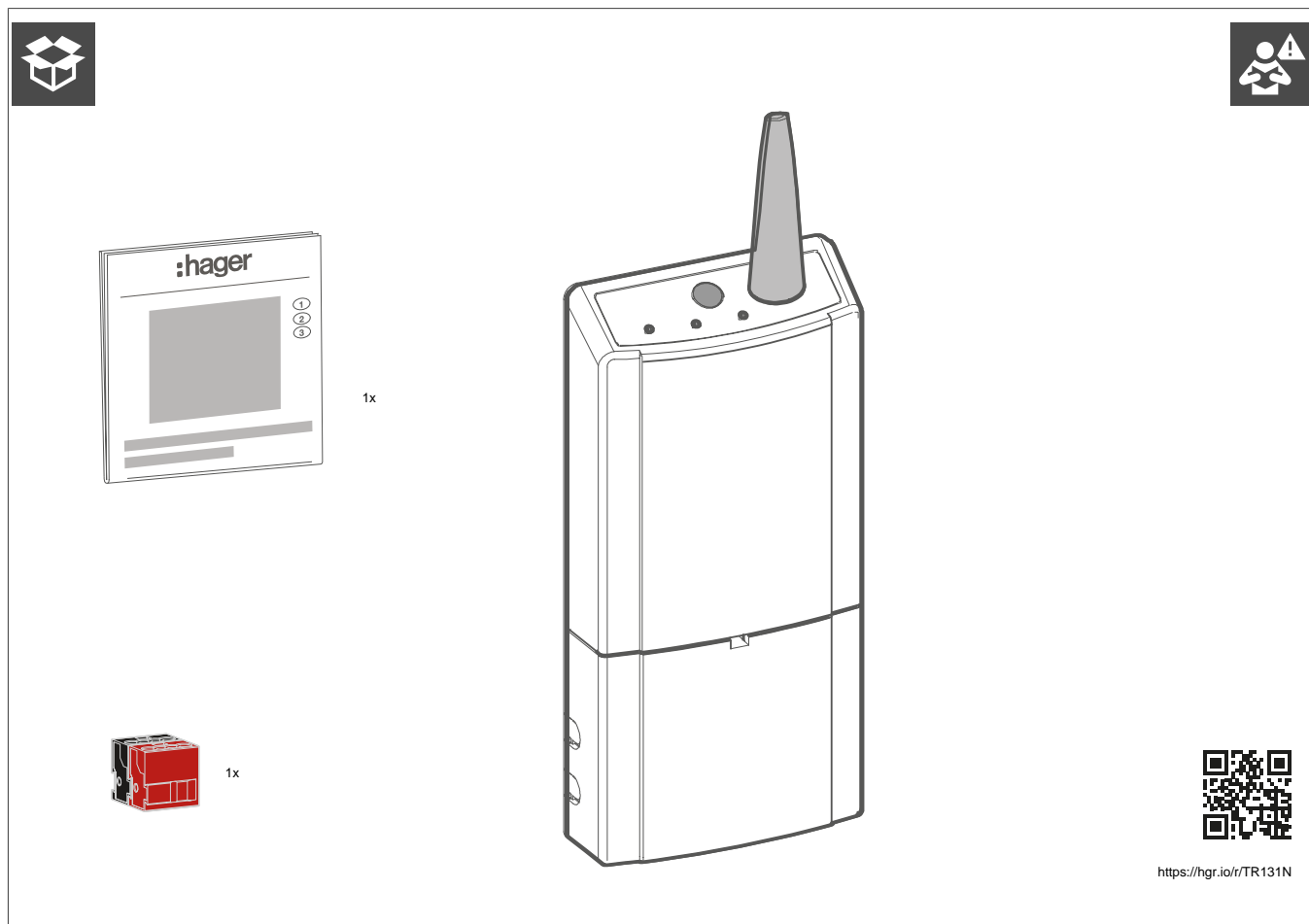


Fig. 1: Scope of delivery

#### Scope of delivery

- Media coupler
- Operating instructions
- KNX bus connection terminal
- Set of screws and dowels for wall mounting

## 4 Design and layout of the device

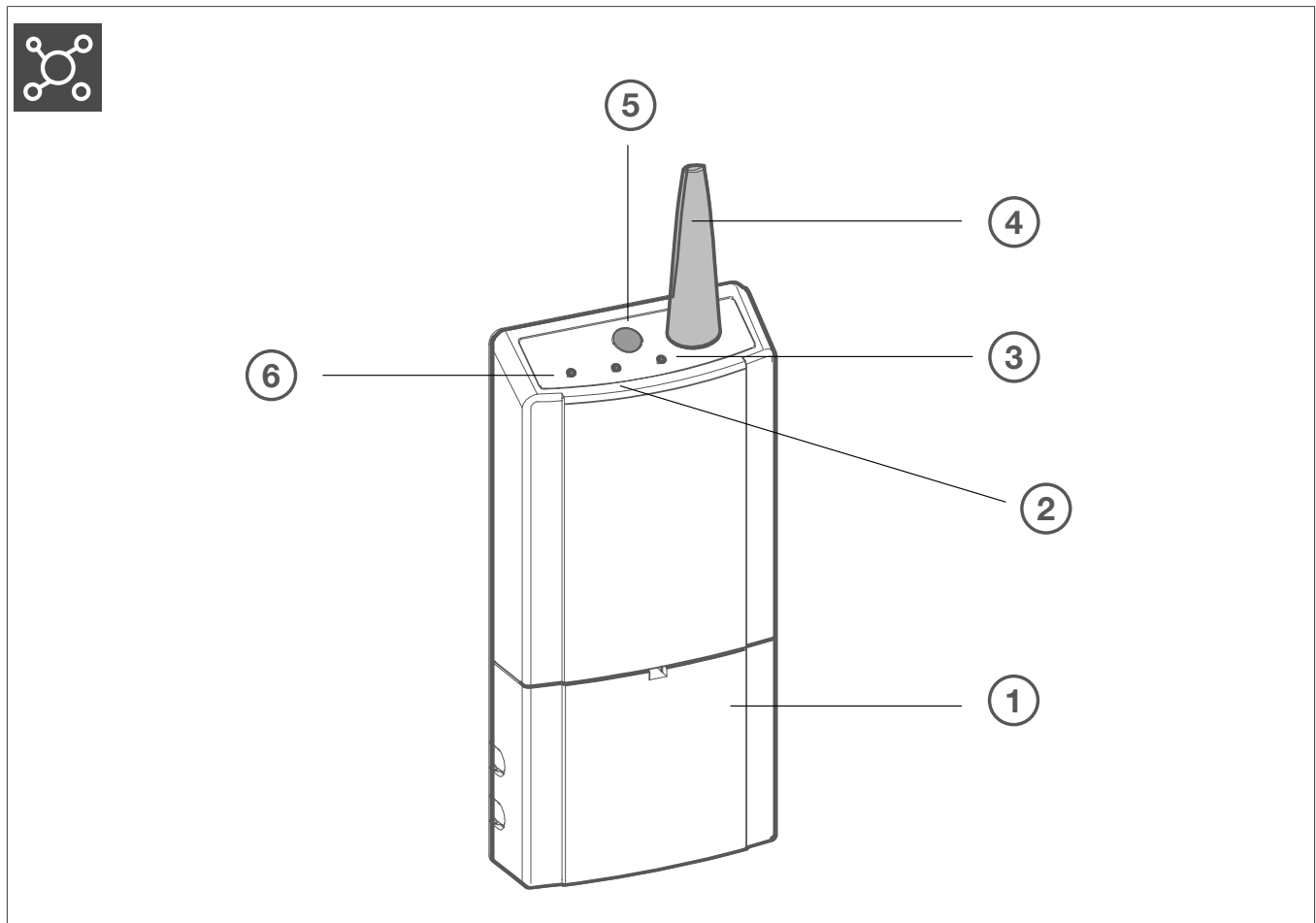


Fig. 2: Design and layout of the device

- ① Cover
- ② Status LED TP telegrams
- ③ Status LED radio telegrams
- ④ Antenna
- ⑤ Programming button
- ⑥ Programming LED

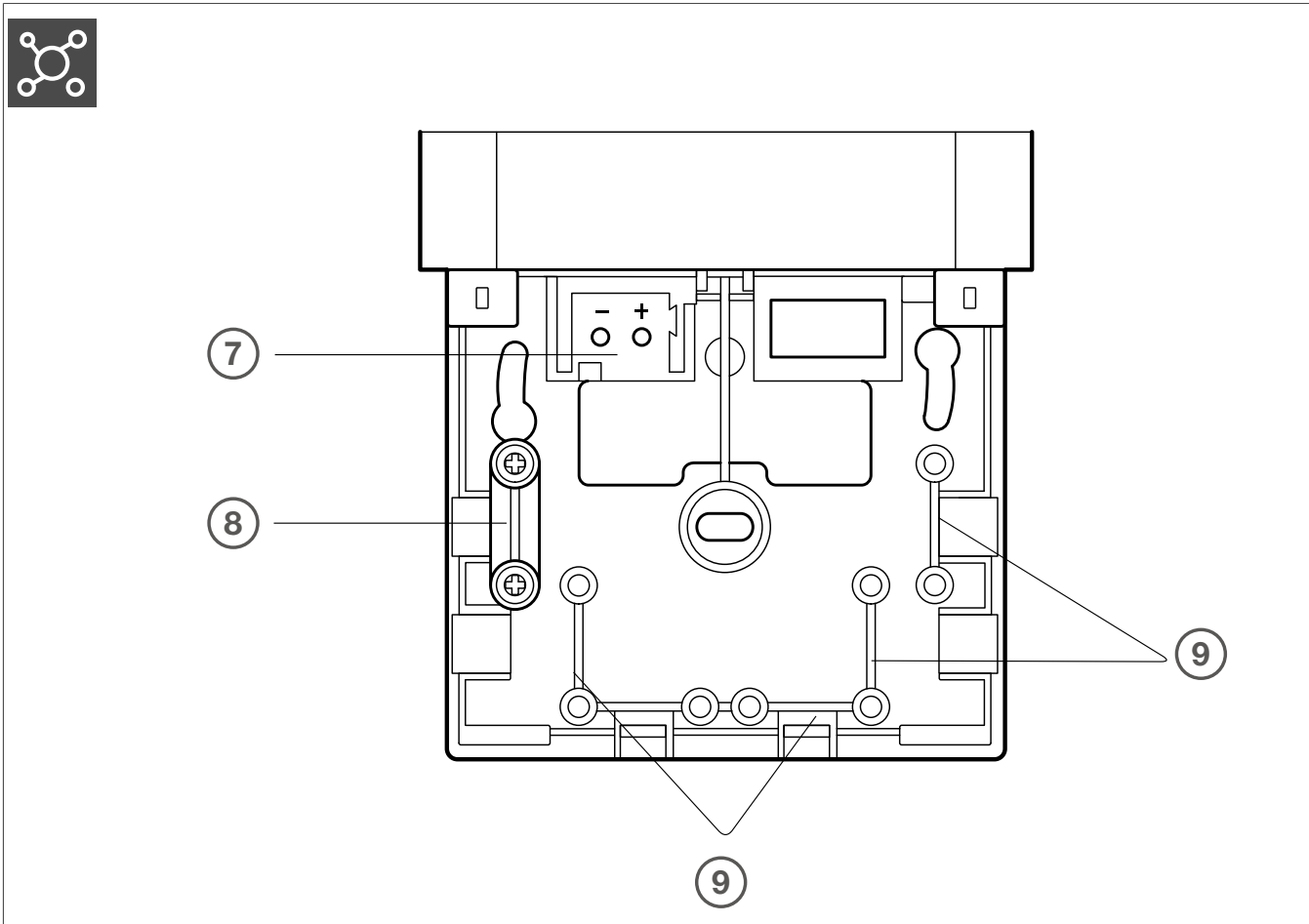


Fig. 3: Design and layout of the device behind the device cover

- ⑦ KNX bus connection terminal
- ⑧ Cable clamp
- ⑨ Additional positions for strain relief

## 5 Function

### System information

This device is a product of the KNX system and corresponds to the KNX guidelines. Detailed specialised knowledge obtained from KNX training courses is required for understanding.

The range of the radio system depends on a variety of influences, which lead to the attenuation of the signals, especially within buildings. Choosing the right location for installation can optimise the range and thus the quality of the signals.

The planning, installation and commissioning of the device are carried out with KNX-certified software.

### System information for KNX radio

The KNX RF (radio frequency) system is a manufacturer-independent KNX radio standard. The KNX radio standard operates in the 868 MHz frequency range. The transmittable data rate is 16 KBit/s and the packet size is in the range of 8 bytes - 23 bytes. Latencies are so low that they are not perceived by humans even when relatively time-critical sensors such as push buttons are used. The maximum range in buildings is approx. 30 m. Existing wired KNX systems can be extended with KNX devices. A wide range of flush-mounted and surface-mounted devices are available for this purpose. In addition, there is a KNX radio push button interface for integrating conventional push buttons or temperature sensors. The media coupler connects or extends wired systems to the KNX radio devices. KNX radio is a bi-directional radio system that allows the devices to receive and transmit information. Commissioning is also carried out using the ETS commissioning software.

### systemlink commissioning

The function of the device is software-dependent. The software is to be obtained from the product database. You can find the latest version of the product database, technical descriptions as well as conversion and additional support programmes from our website.

### Functional description

The media coupler TR131N serves as an interface between wired and radio-controlled products of the Tebis series. This device is part of the Tebis installation system.

### Correct use

- Connection and control via KNX bus
- Transmission of radio signals between bidirectional radio products and twisted pair components
- For use in residential and commercial premises
- Only use in closed and dry premises
- Installation into wall box according to DIN 49073

### Product characteristics

- Connecting device between KNX TP devices and KNX RF devices
- Repeater function
- Can be used as a programming interface in pure KNX RF systems
- Can be used as a line coupler in a KNX TP system with a KNX RF line
- With KNX bus connection terminal
- With programming button and programming LED
- With two status LEDs for displaying TP and RF data traffic

## 6 Planning instructions for radio installations

### Radio transmission and range

Radio waves can be subject to a number of different influences that weaken the signals and thus shorten their range, especially within buildings. That is why all manufacturers of radio products generally indicate the free field range, which refers to the uninterrupted propagation of the radio waves and optimally oriented antennas. For KNX radio products, this range is generally 100 m. Unless a building is specially shielded by according measures, radio links through three walls and two ceilings can be implemented without any problems. Nevertheless, in any building there may be advantageous and disadvantageous locations for installing radio components.



The free field is defined by damp, level ground. Transmitters and receivers are attached at a height of at least 2 m above the ground. The horizontal distance to interfering objects from each point of the transmitter-receiver connection line is 20 metres.

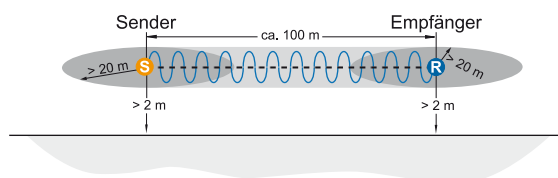


Fig. 4: Distances to sources of interference in the free field

### Reducing factors of the range of radio signal

- Metallic or conductive surfaces such as anti-static floors, insulation with metal lamination, reinforced concrete, cable routes, metal grid ceilings, carbon fibre panels, hot water heating systems, electric underfloor heating systems, etc.
- Electronic devices exposed to high frequency signal emissions, such as computers, electronic transformers or microwave devices, etc.
- Thermal insulation glazing with metallised glass that absorbs or reflects radio signals very strongly
- Moisture in plaster, brick walls and screed
- Precipitation and fog outside

Material	Degree of material penetration
Wood, plaster, plasterboard, uncoated glass	approx. 90 %
Brick, press boards	approx. 70 %
Reinforced concrete, underfloor heating	approx. 30 %
Metal, metal grids, aluminium laminates, coated glass	approx. 10 %
Rain, snow	approx. 1 ... 40 %

Table 2: Material penetration

### Selecting the installation location

The following installation instructions must be observed to ensure good radio transmission:

## Planning instructions for radio installations

- Do not position receivers in the radio shadow of metallic building elements if possible. Do not install transmitters/receivers behind metallic surfaces or in metallic housings. The areas behind metallic building elements such as pedestals, ceiling beams or fire doors constitute radio shadows (see Figure 2). Receivers installed in such shadows cannot receive signals directly and have to depend on reflected radio waves.

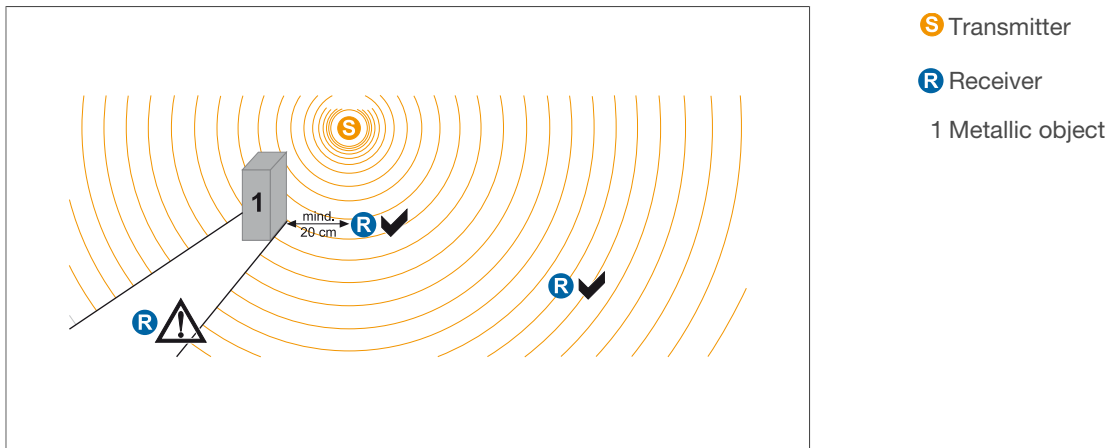


Fig. 5: Radio shadow and distances from metallic objects

- Maintain a distance to large metal surfaces. Metal surfaces act as a grounding surface, radio signals near the surface are diverted. Furthermore, metal surfaces strongly reflect radio waves, which can cause overlapping of the signals or even elimination.
- The connecting line between the radio transmitter and the radio receiver should be selected in such a way that any path through masonry or other attenuating materials is as short as possible (see Figure 3). It is particularly important to avoid niches in walls, since they obstruct the propagation of radio waves.

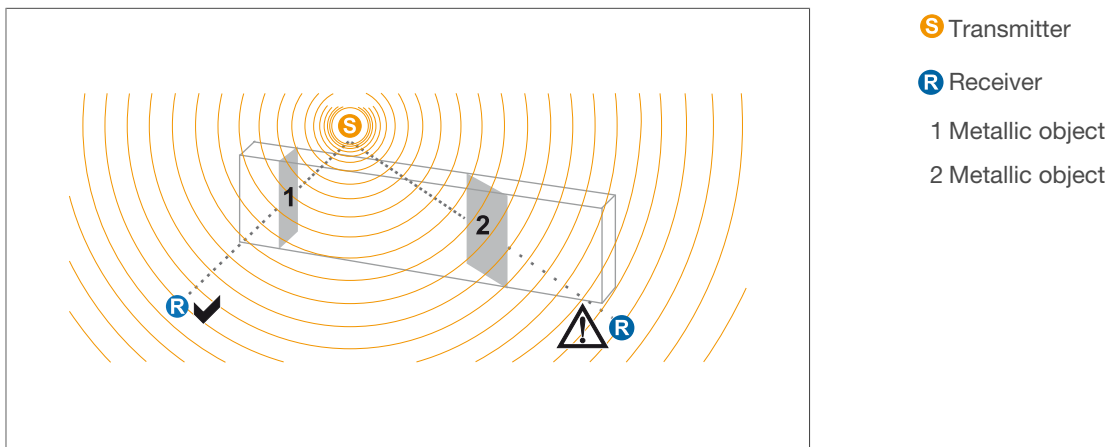


Fig. 6: Effective wall thickness for radio propagation

- Maintain a distance to devices that emit high-frequency signals. At least 50 cm are recommended. With increasing distance, the interference decreases sharply.
- Maintain a distance between transmitters and receivers. At least 30 cm are recommended. If the signal strength is too great, the receiver is overmodulated.

- Maintain a distance from other radio services. At least 3 m are recommended. Other radio services such as DECT phones, baby phones, radio headphones etc. can severely impair the signal.
- Transmitters or receivers that perform master functions throughout the building (e.g. ALL OFF or master blind control) should be positioned as centrally as possible. Disadvantageous transmission circuits that run diagonally through the entire building are prone to interference and can impair the function.



Reception interferences often occur due to sealing off, suppression or reflection of the radio signal, as in the case of car radios or mobile phones. In the case of irregular reception, it is often sufficient to move the transmitter or receiver by a few cm to improve the quality of reception.

### **Operating tips for radio installations**

- Radio telegrams within a 'radio zone' may only be repeated by a maximum of one device with a repeater function; other devices with a repeater function within the 'radio zone' can lead to malfunctions due to telegram overlays.
- A high number of automatically triggering radio transmitters, such as radio motion detectors, can result in telegram overlaps and communication problems within a system.

### **Impairment due to changed ambient conditions**

A functioning radio connection can still be impaired even during operation. This can be attributed to:

- Opening and closing doors and roller shutters consisting of insulating materials
- Adding and moving furniture, particularly furniture made of metal
- Additionally erecting walls consisting of problematic materials, such as metallised glass, metal-laminated insulating materials etc.
- Temporary influences on the transmission circuit, such as fog and precipitation outside, as well as damp plaster or wallpaper inside

## 7 Information for qualified electricians

### 7.1 Installation and electrical connection

#### Selecting the location for installation

- A prerequisite for good transmission quality is a sufficiently large distance to possible sources of interference, such as metallic surfaces, microwaves, hi-Fi and TV systems, ballasts or transformers.
- Do not mount media couplers near the ground or the ground.
- Do not place KNX radio devices in small metal distribution boards.
- Position several adjacent media couplers so that their radio ranges do not overlap at all or that they can receive each other. Check within a system whether a media coupler can be configured as a repeater.

#### Example of a good central placement of the media coupler

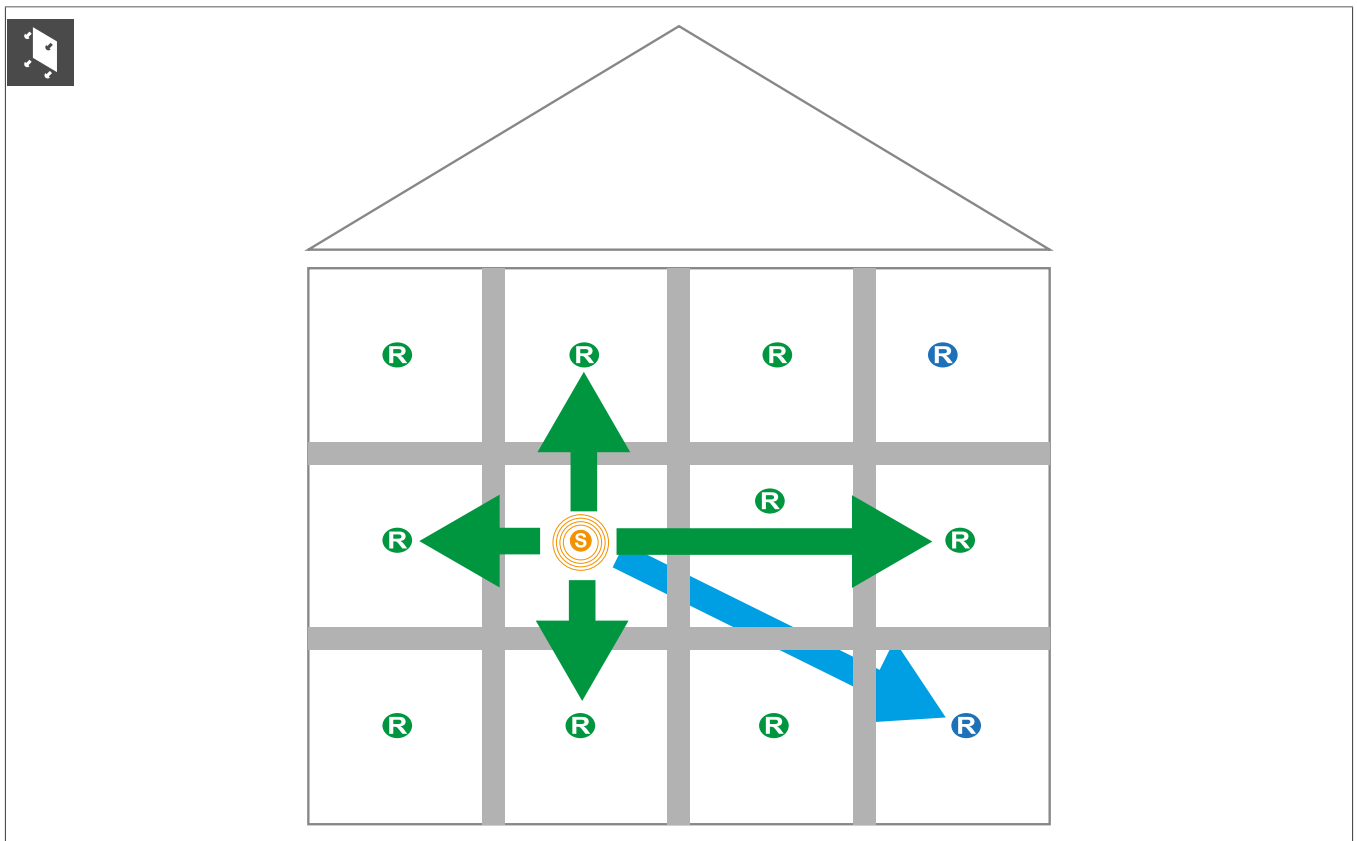


Fig. 7: Good placement of the media coupler



### Example of poor placement of the media coupler

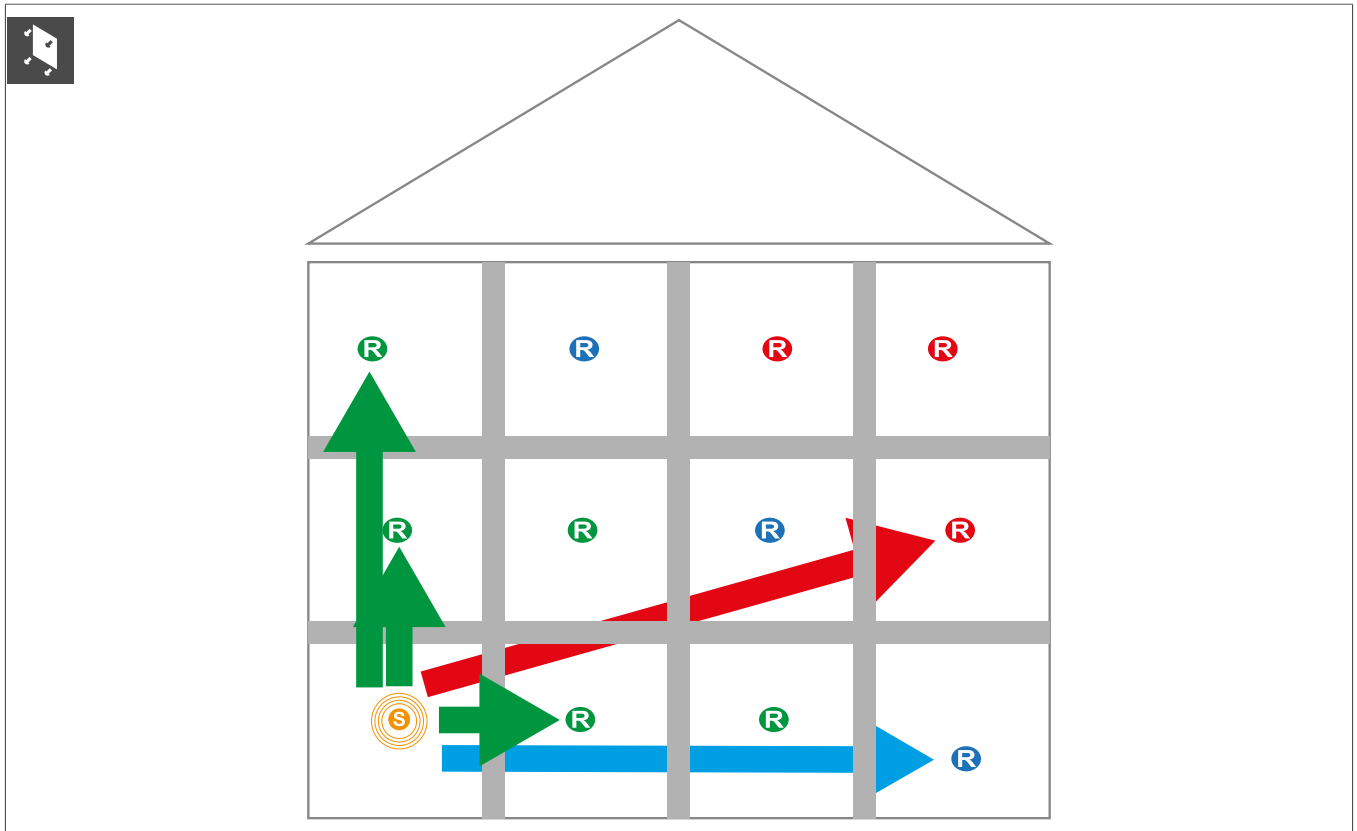


Fig. 8: Poor placement of the media coupler

### General installation instructions

Installation on a suitable flush-mounted, hollow-wall device box, on the wall or in the intermediate ceiling of commercial buildings.



The device should only be used in enclosed, dry rooms.

Do not place the device in metal distribution boards.

Wire or sheath cables from other circuits may not enter or pass through the device wall box.

### Installing the device



#### **Danger**

Electric shock when live parts are touched!

An electric shock can lead to death!

- Disconnect all connection cables before working on the device and cover any live parts in the area!

### Mount the device in the wall box

- Remove the device from its packaging and dispose of the packaging material properly.
- Remove cover.
- Attach the device to the wall box using the device screws. Feed the KNX bus connection cable through the push-out opening on the rear into the device.

OR:

### Mounting the device on the wall

- Remove the device from its packaging and dispose of the packaging material properly.
- Remove cover.
- Use the enclosed drilling template to drill holes for installation of the device.
- Attach the device to the wall using the enclosed fixings. Feed the KNX bus connection cable through the push-out opening on the rear into the device.



The hole spacing and dimensions for aligning the drill holes can be found in the enclosed drilling plan.

OR:

### Place the device in the intermediate ceiling

- Remove the device from its packaging and dispose of the packaging material properly.
- Remove cover.
- Place the device in a suitable place in the intermediate ceiling. Feed the KNX bus connection cable through the push-out opening on the rear into the device.

### Connecting the bus cable

☑ The device has been installed correctly.

- Connect the KNX bus connection cable to the device using the KNX bus connection terminal.
- Reattach the cover.

## 7.2 Topology

### Line couplers

Media couplers in the line

- Lines can be set up with TP line couplers or RF media couplers
- Each line may contain only **1 media coupler** (except for lines in which the media coupler is configured as a repeater)

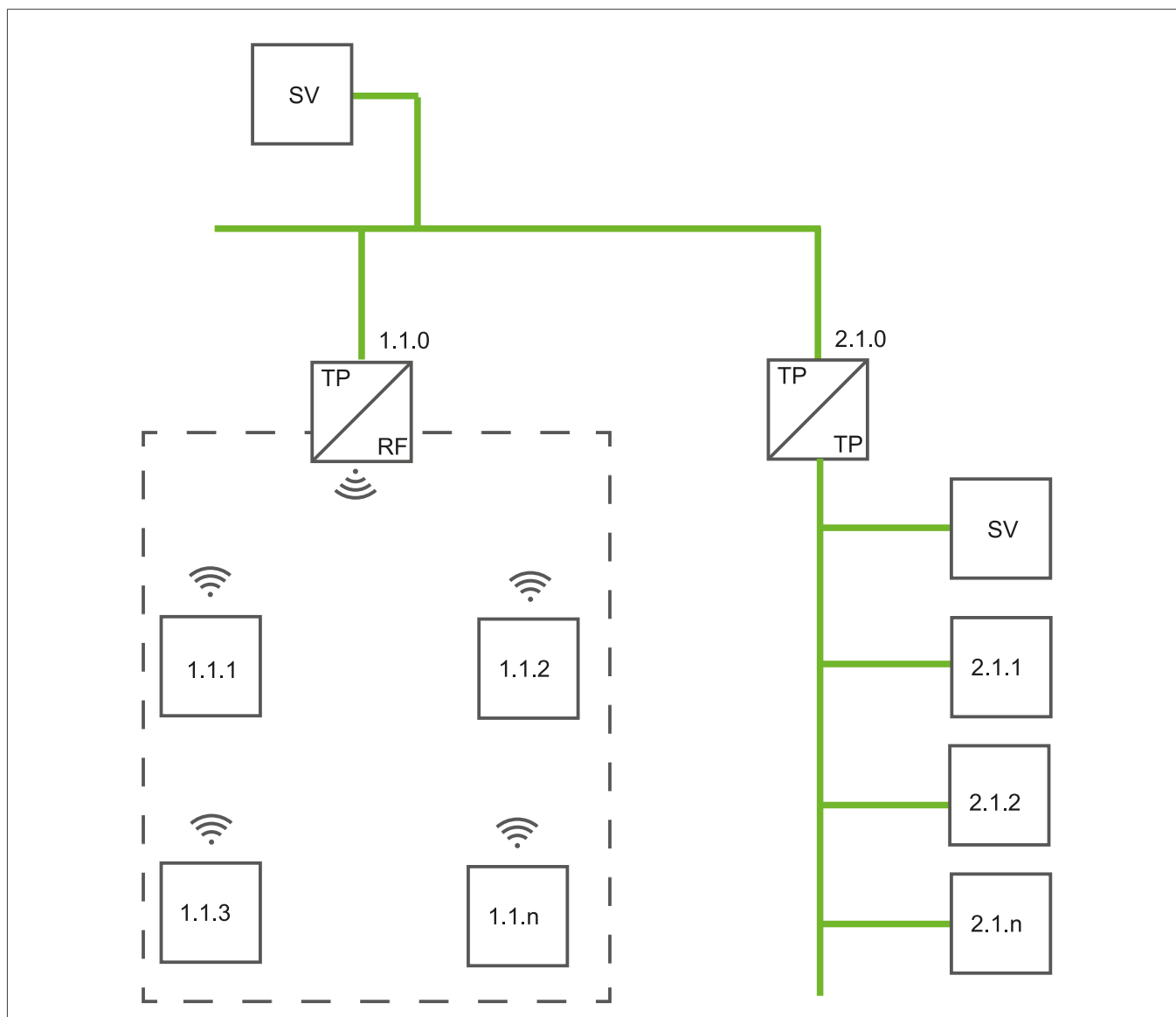


Fig. 9: Media couplers in a TP line

## 7.3 Commissioning

The following notes must be observed for configuration and commissioning.



Do not remove the device after configuration. It transmits the commands between the KNX radio and TP products in automatic mode.

The device **must be** located at the entrance of the line: Physical address of type x.y.0.

The device must be assigned to a different line than the USB or IP interface.

The use of old-generation media couplers (TR130A/B) is not permitted in installations that contain a new media coupler (TR131A/B).

The radio and TP lines must be separate:

- The radio line must not contain TP products: The display of line ii of the ETS would not match.
- The TP lines must not contain radio products: The configuration of these radio products would be impossible in this case.

Only use the plug-in to program the physical addresses and download the products. As programming of radio products with ETS is not possible, the usual menus used for configuration are not available.

The Copy Product function must not be used in the ETS for the radio products. This would lead to mismatches of the projects, which would cause problems with the plug-in.

Avoid using the 'Standard' button in the ETS parametrisation window. This results in:

- Loss of parametrisation of an already configured product
- Synchronisation problems of the plug-in data and the configured radio products.

During the physical addressing of the download of the application or when resetting to the factory setting of unidirectional radio products, it may be necessary to call the function several times.

A line change of an already configured media coupler causes interference with the plug-in.

A parked product (for example, the address 1.1.-) must not be in the same line as the media coupler.

### Product and software requirements for the design of the KNX system

Structure of the KNX system	Product and software requirements for configuration
TP system	As of ETS 5.6.x + USB data interface
KNX radio system	As of ETS 5.6.x + media coupler + USB data interface
TP and KNX radio system	As of ETS 5.6.x + media coupler + USB data interface

### Download the media coupler app

- ☑ Before the actual programming and configuration of the media coupler, the ETS app must be downloaded free of charge in the KNX Shop.

- Log on to [my.knx.org](http://my.knx.org) or create a new user account.
- Under Shop - ETS Apps select and buy the app of the media coupler TR131N.
- Follow the instructions in the ordering process.

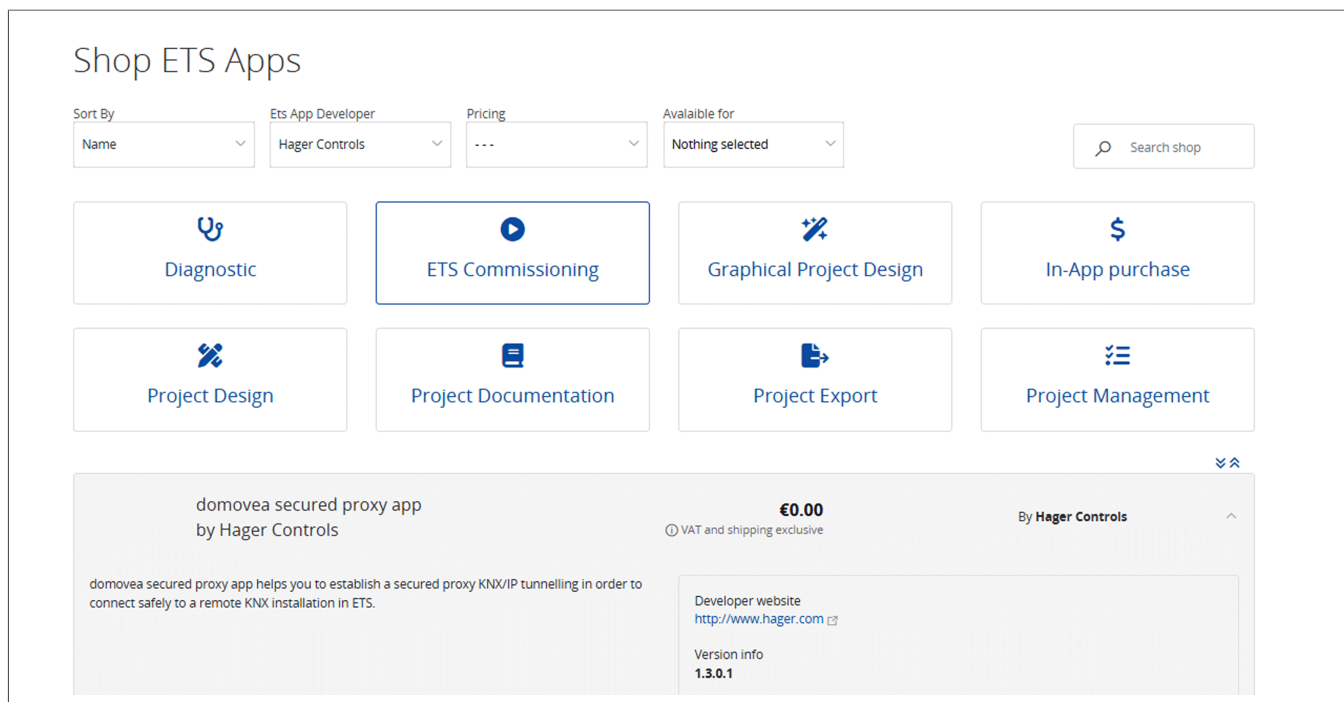


Fig. 10: Shop ETS Apps



The app is free of charge.

If you have any questions about **KNX ETS apps**, **KNX user account**, etc., please refer to the [support.knx.org](http://support.knx.org) page and the FAQ.

- Download the app of the TR131N media coupler.

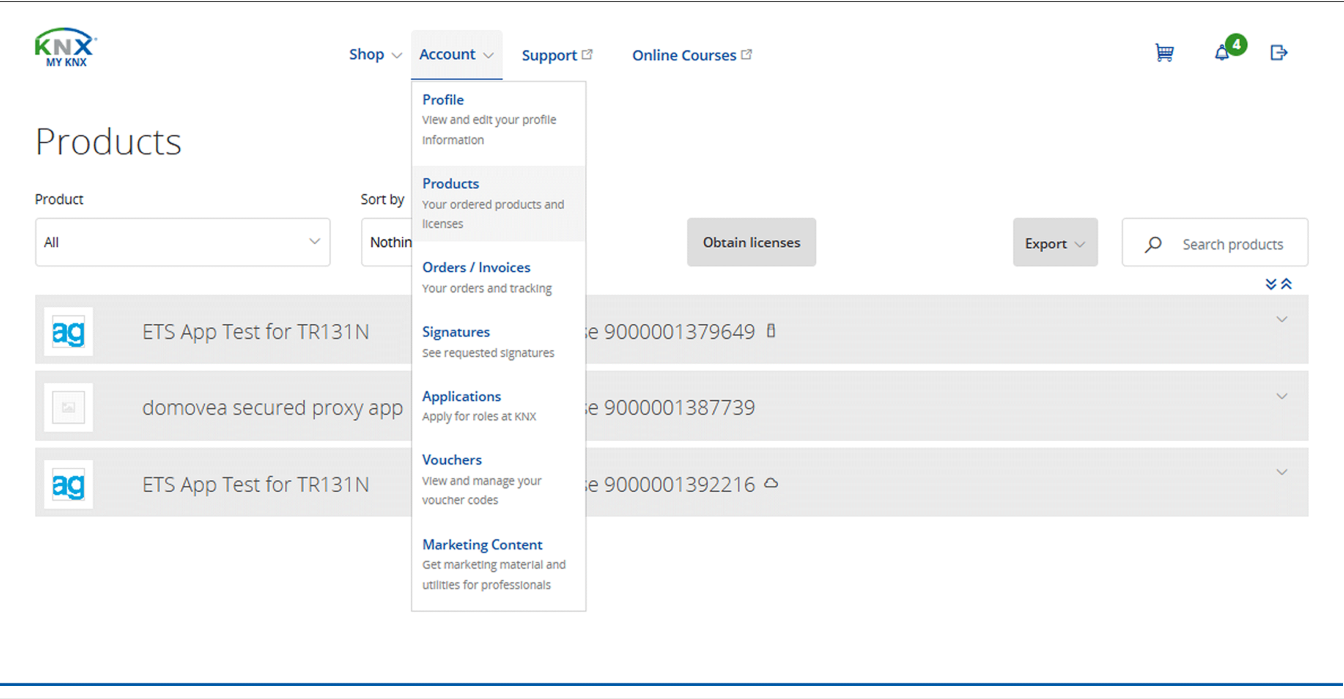


Fig. 11: Account - Select Products

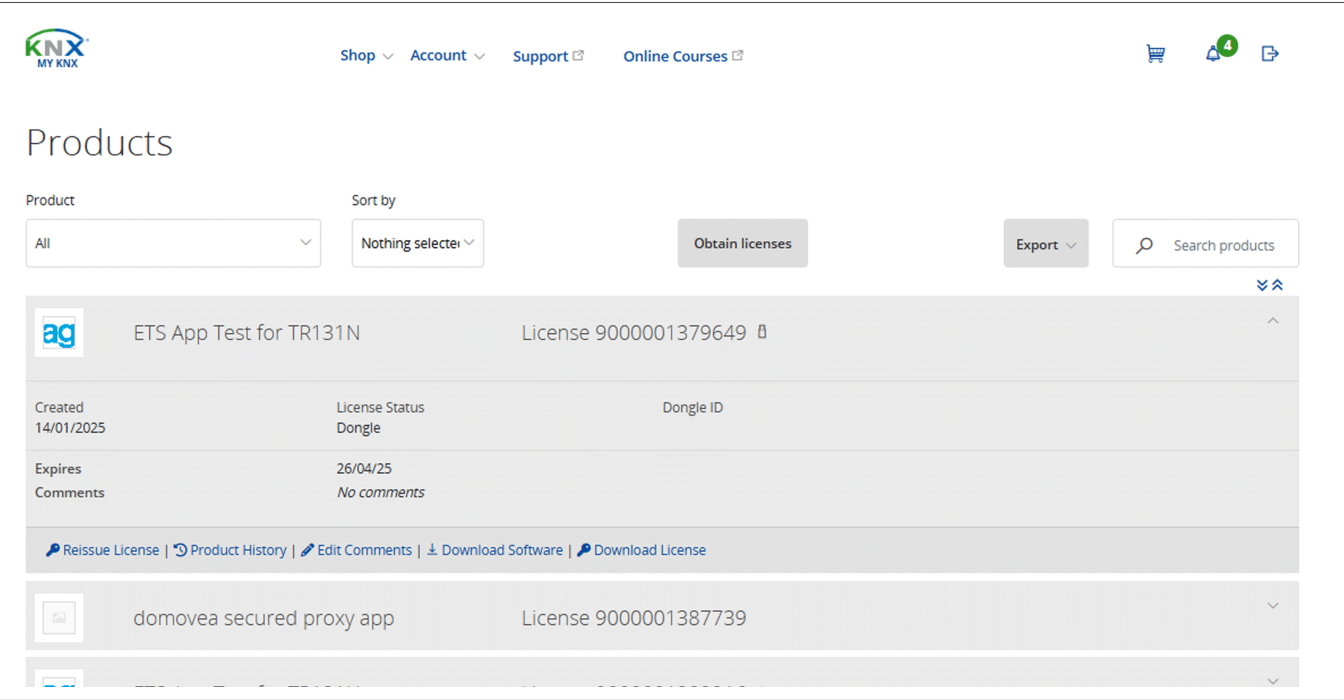


Fig. 12: Select the ETS app, download it

Open ETS and log in with the user data of [my.knx.org](https://my.knx.org).

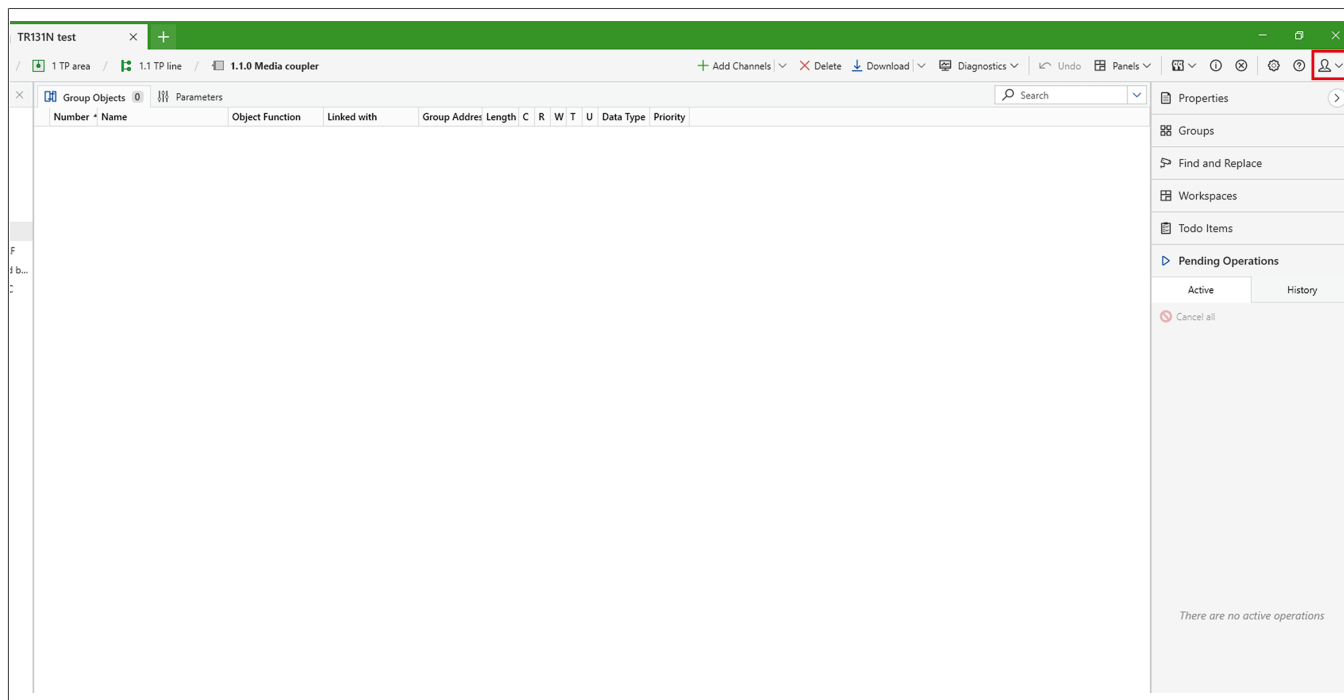


Fig. 13: Open ETS and log in



The ETS programming software must be version 5.6.x or higher.

- Download the KNX.prod application to the product catalogue of the ETS, if not already done.
- Create a separate TP line and insert the media coupler. The media coupler must have the physical address x.y.=.

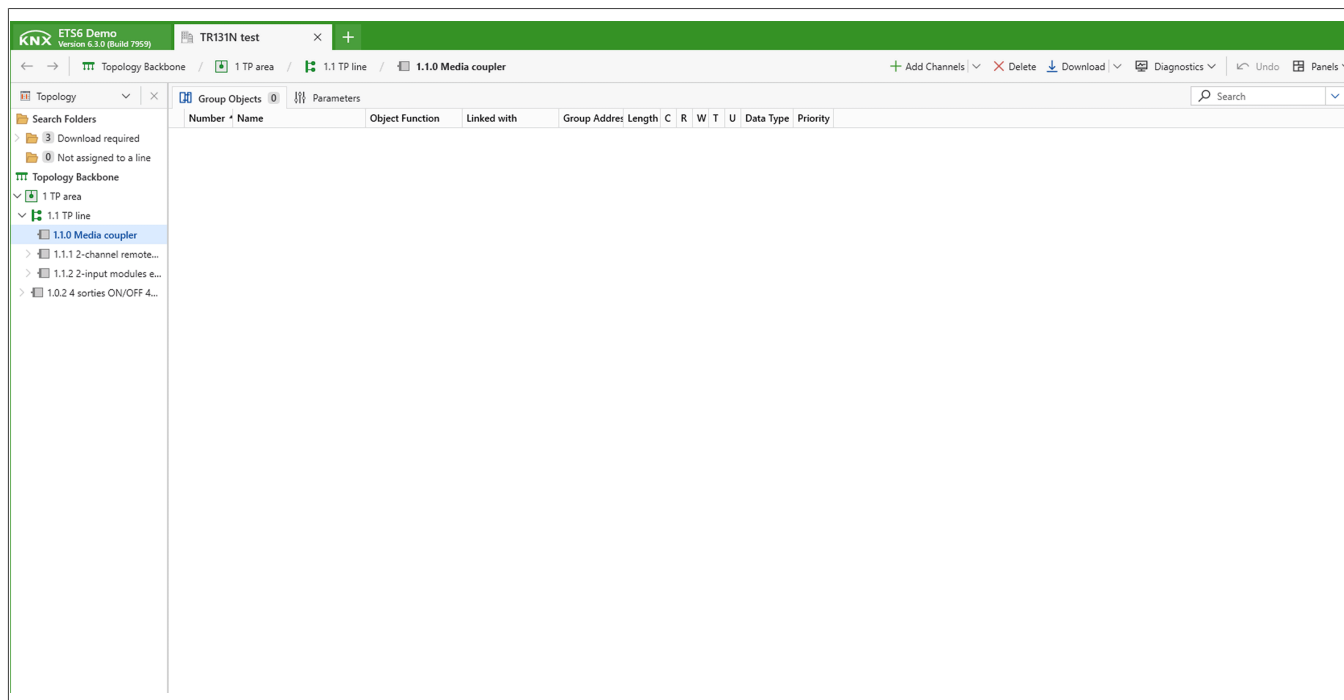


Fig. 14: Create a new TP line

- Under Settings → ETS Apps, install the app of the TR131N media coupler.

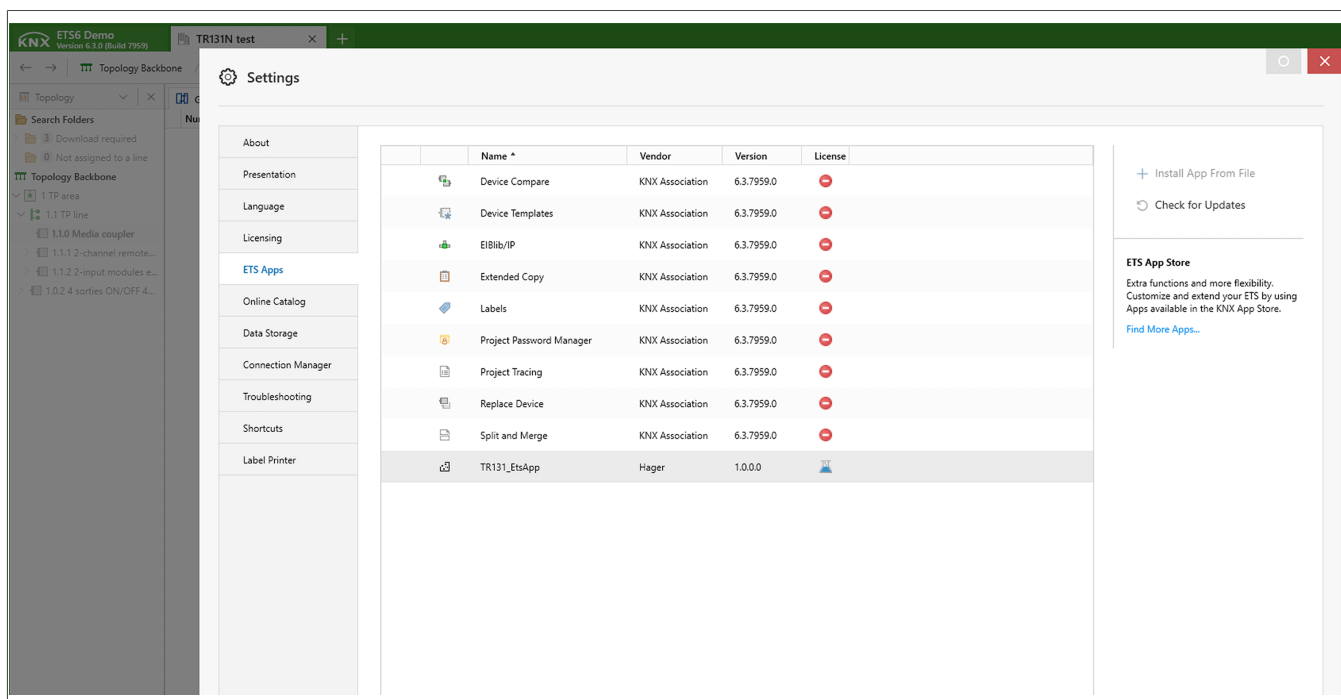


Fig. 15: App settings

In the ETS → All Panels → Hager, select the app of the media coupler.

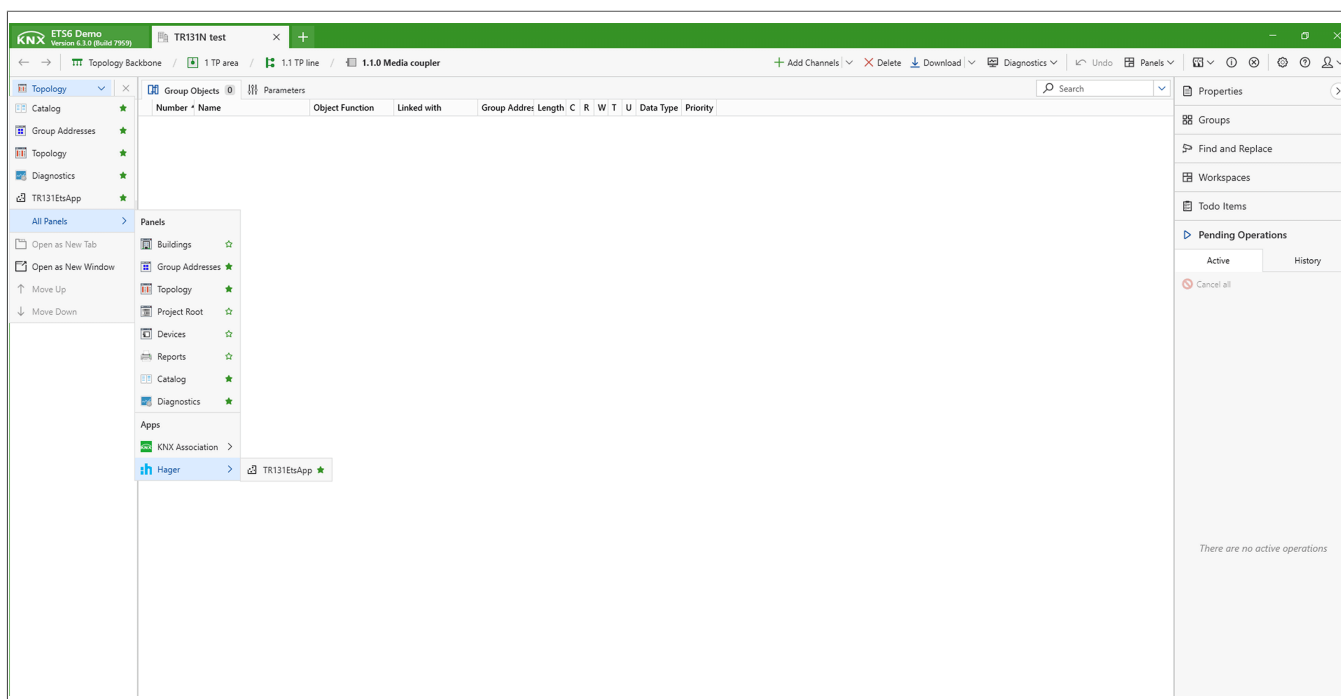


Fig. 16: Select ETS - Panels - App



All software illustrations shown are up-to-date at the time of documentation creation. Deviations may occur during the product life cycle due to software updates.

## Commissioning in KNX systemlink mode (ETS)

### systemlink – loading the physical address and application software



### Programming media couplers

- | Press the programming button (Fig. 2/5).
- The programming LED (Fig. 2/6) lights up.



If the programming LED (Fig. 2/6) does not light up, there is no bus voltage on the device.

- | Load the physical address into the media coupler.
- Programming LED of the button goes out.
- | Note the physical address.
- | Load the application software into the device.

### Programming additional KNX radio devices

- | Press the programming button on the respective device.
- The programming LED lights up.
- | Load the physical address into the device.
- The programming LED goes out.
- | Note down the physical address on the labelling field.
- | Load the application software into the device.

## 7.3.1 Commissioning the device

### Functional test

- ☑ The media coupler is properly connected and ready for use.
- ☑ The KNX TP line(s) is(are) connected in accordance with the regulations and ready for operation.
- ☑ The KNX radio devices are also connected and ready for operation in accordance with the regulations.
- Triggering the function on a KNX radio transmitter.
- The receiver device triggers the configured function.

## 7.4 Configuration of a KNX ETS radio system


### 7.4.1 Pre-configuration checks

Before starting the configuration, check the following items:

- The required ETS version is 6.3.0 or higher. Download and install the update, if necessary.
- Check that the ETS application (TR131ETS app) that allows the parameter setting of the radio products is installed.

### 7.4.2 Configuration steps

Steps	Comments
Starting ETS and opening or creating a project there.	Version 6.3.0 or higher is required.

Steps	Comments
Creating a radio line in the ETS project	Proceed according to the usual ETS procedure.
Inserting the media coupler and the other participants into the RF line	Proceed according to the usual ETS procedure: <ul style="list-style-type: none"> <li>– Load the application programs from the ETS database and insert the desired participants into the RF line (KNXPROD),</li> <li>– All RF products must be in the same line as the media coupler, otherwise they cannot be configured or controlled.</li> </ul>
Programming and editing the parameters and connections of all radio products in the system (other than the media coupler)	Proceed according to the usual ETS procedure: <ul style="list-style-type: none"> <li>– For the parameters: Click on the <b>Parameters</b> of the product in question,</li> <li>– For the group addresses: Right-click the object you want to connect, then click <b>Connect to</b>.</li> </ul>
Giving the media coupler a physical address and downloading the address	Proceed according to the usual ETS procedure: <ul style="list-style-type: none"> <li>– Right-click on the media coupler in the ETS tree diagram,</li> <li>– First click on <b>Programming</b>, then on <b>Physical Address</b>.</li> </ul> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;">  <p><b>Notice</b></p> <p>The physical address of the media coupler can be changed according to the usual procedure, <b>but must never end with 0</b>, i. e. it must be of type x.y. (1 to 255). Example: 1.2.1.</p> </div>
Starting the ETS app (TR131ETS app) of the media coupler for the configuration of the radio products	The ETS app is a specific programme of the media coupler that can be used to configure the radio products in ETS mode. In the upper left menu: <ul style="list-style-type: none"> <li>– Click <b>Panels</b></li> <li>– Click <b>All panels</b></li> <li>– Select <b>Hager</b> from the <b>Apps</b> tab</li> <li>– Start the <b>TR131ETS app</b></li> </ul>
Assigning a physical address to the radio products and loading these addresses into the products	This is done using the <b>Physical Addressing</b> screen of the ETS app: <ul style="list-style-type: none"> <li>– Click the <b>Physical Addressing</b> button in the strip at the top of the screen. The user is guided by the ETS app according to the type of radio product (uni-directional or bi-directional).</li> </ul>
Uploading the parameters and connections to the radio product	This process is performed using the <b>Download</b> screen of the ETS app. The uni-directional radio products must be approached to the media coupler.

## 7.4.3 Detailed description of the different configuration stages

### 7.4.3.1 Starting ETS

The version must be 6.3.0 or higher. Download the latest version, if necessary.

### 7.4.3.2 Creating a radio line in the ETS project and adding all radio participants

Use the usual procedures to create the radio line and add the participants.



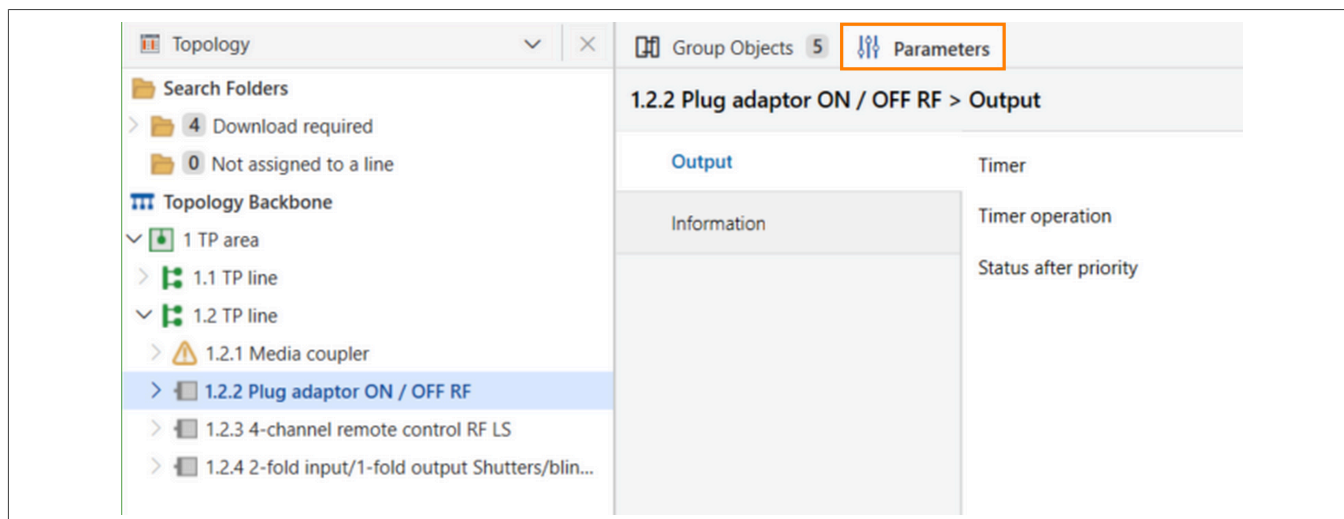
### Notice

Create the media coupler and all radio products in the same line. Do not add TP products to this line.

### 7.4.3.3 Editing the parameters of all RF products except the media coupler

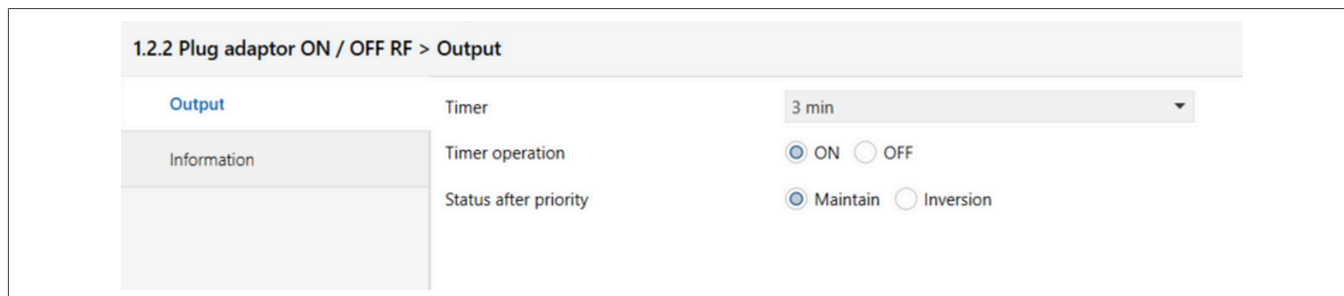
In the ETS tree, select the RF product to be set up and click **Parameters** to perform the configuration.

Example:



The parameterisation window of the product appears.

Example:

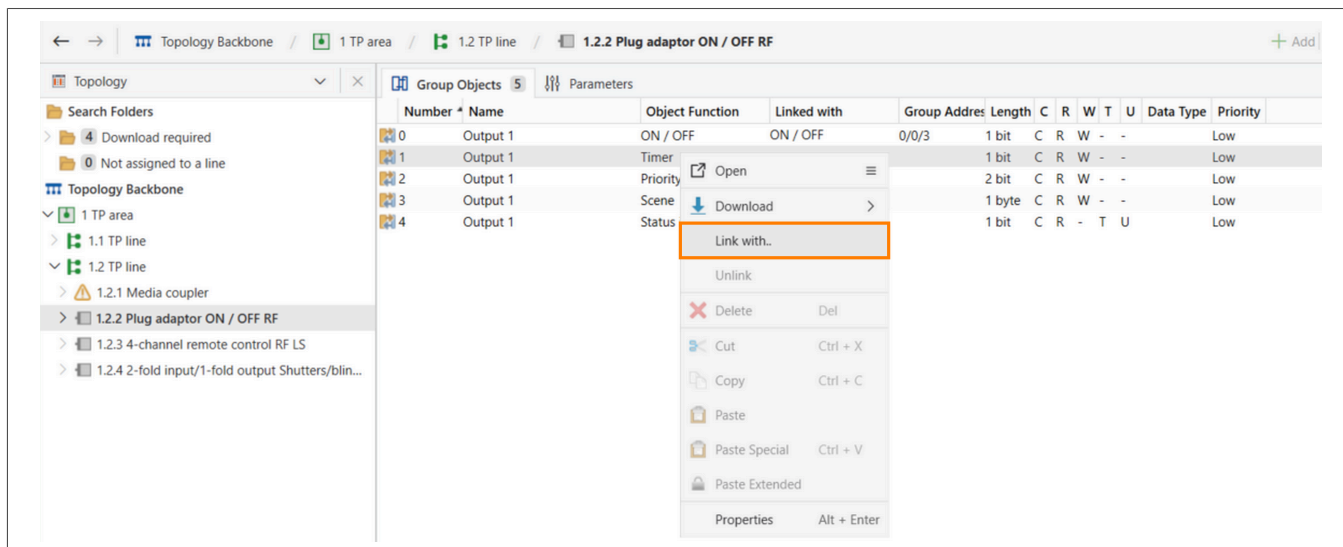


Proceed according to the ETS procedure for the parameterisation of the product.

### 7.4.3.4 Creating the connections and editing the addresses of the groups

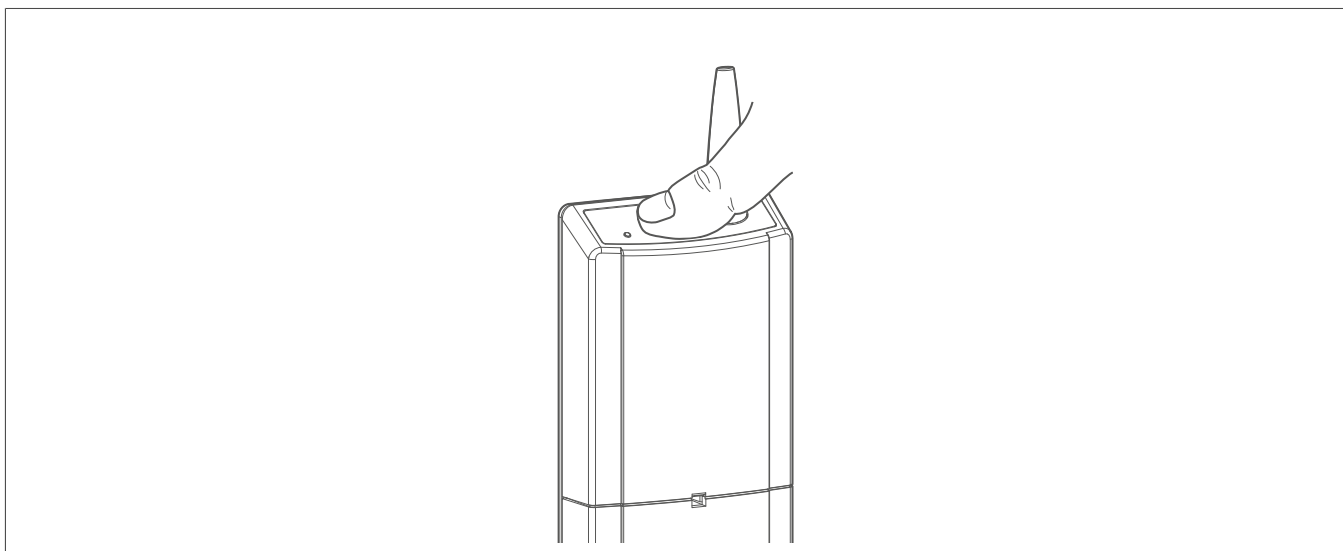
First, select a product of the radio line, then select a communication object from the list. Right-click the object you want to connect, then click **Connect to**.

Example:



### 7.4.3.5 Assigning and downloading an address in the media coupler

Switch the media coupler to **Physical Addressing** mode by pressing the button briefly.



In the ETS product tree diagram, right-click on the coupler:

- First click on **Programming**, then on **Physical Address**.

←

→

Topology Backbone

1 TP area

1.2 TP line

1.2.1 Media coupler

Topology

Channels 1

Group Objects 0

Parameters

Search Folders

4 Download required

0 Not assigned to a line

Topology Backbone

1 TP area

1.1 TP line

1.2 TP line

1.2.1 Media coupler

Download

Unload

Info

Restart Device

Compare Device

Print Labels

Transfer Parameters and Flags

Park

Unlink

Add To Device Templates

Delete

Cut

Copy

Paste

Paste Special

Paste Extended

Properties

Download All

Partial download

Download Individual Address

Overwrite Individual Address

Download Application

Ctrl + Shift + L

Ctrl + D

Ctrl + Shift + I

Ctrl + Shift + Alt + I

Ctrl + Shift + Alt + D



#### Notice

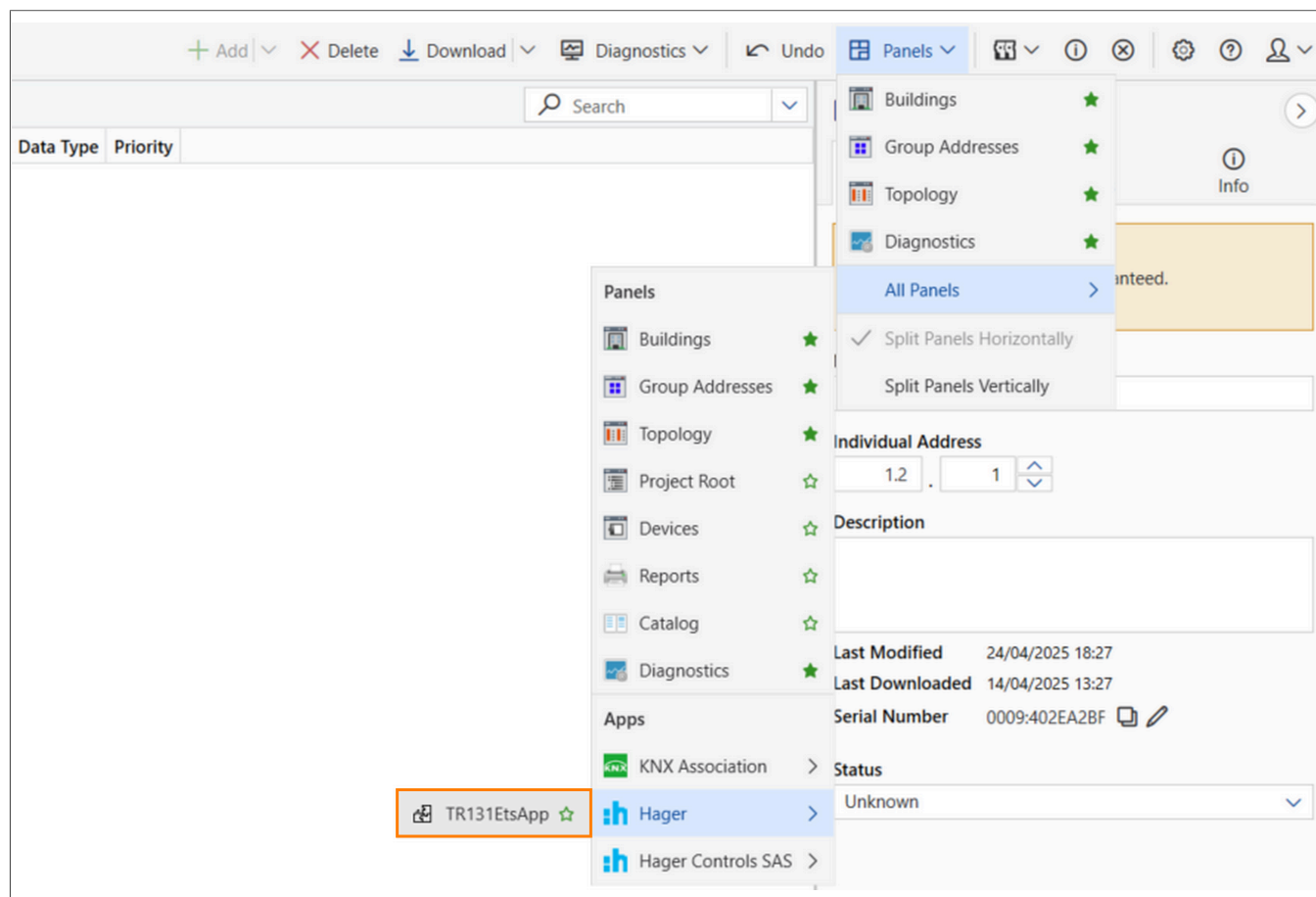
If necessary, the physical address of the media coupler can be changed according to the usual procedure, **but it must never end with 0**, i.e. it must be of type x.y. (1 to 255). Example: 1.2.1.

### 7.4.3.6 Starting the ETS app of the media coupler

The ETS app is a specific programme of the media coupler that can be used for the configuration of the radio products in ETS mode.

In the upper left menu:

- Click **Panels**
- Click **All panels**
- Select **Hager** from the **Apps** tab
- Start the **TR131ETS app**



Once started, the following window appears:

The screenshot shows the TR131EtsApp interface. At the top, there are buttons for 'Export', 'Import', and 'Generate installation code'. The main area is divided into a left sidebar and a main content area. The sidebar contains 'TR131 view' (selected), 'Physical addressing', 'Download', and 'Diagnosis'. The main content area shows the 'Media Coupler' dropdown set to '1.2.1: TR131N Media coupler - Serial Number: 0009402EA2BF'. Below this, there are three tables: 'ETS data', 'Device data', and 'Software versions'.

ETS data		Device data		Software versions	
Reference	TR131N	Loaded @	1.2.1	TR131 (VD5)	1.2.0
@ ETS	1.2.1	Serial number	00094006C845	TR131 (Firmware)	01.03.00
Version	12	Loaded DoA	0009536DE8D4		
Latest download	14/04/2025 11:27:26	Stored DoA	0009536DE8D4		
Description	Media coupler	Installation code	1570		

At the bottom, there is a log showing successful connections and installation code storage.



### Notice

If the application does not automatically establish a connection to the media coupler, you can also establish a connection manually.

- Select the media coupler from the drop-down menu.
- Establish the connection by clicking

This screenshot shows the same interface as the previous one, but with a red box highlighting the connection icon (two interlocking circles) in the top right corner of the main content area. The 'Media Coupler' dropdown is still set to '1.2.1: TR131N Media coupler - Serial Number: 0009402EA2BF'. Below the dropdown, the same three tables are shown, but the data is replaced with dashes ('---').

ETS data		Device data		Software versions	
Reference	---	Loaded @	---	TR131 (VD5)	---
@ ETS	---	Serial number	---	TR131 (Firmware)	---
Version	---	Loaded DoA	---		
Latest download	---	Stored DoA	---		
Description	---	Installation code	---		

This screenshot shows the left sidebar of the TR131EtsApp interface. At the top, there are buttons for 'Export' and 'Import'. Below them, the sidebar menu is visible with the following options: 'TR131 view' (selected), 'Physical addressing', 'Download', and 'Diagnosis'.

The menu on the lower left side of the window allows you to:

- View the parameters of the TR131 (enabled by default): Click **TR131 view**.
- Assigning a physical address to the radio products: Click **Physical Addressing**.

- Uploading the parameters and connections to the radio product: Click **Download**.
- Creating diagnostics: Click **Diagnostics**.
- The **Export** button in the upper right corner allows you to export the system data.

The **Import** button in the upper right corner enables the import of system data, for example, when replacing a coupler.

### 7.4.3.7 Viewing the TR131 View

- Click **TR131 view**.

The following display appears:

ETS data		Device data		Software versions	
Reference	TR131N	Loaded @	1.2.1	TR131 (VD5)	1.2.0
@ ETS	1.2.1	Serial number	00094006C845	TR131 (Firmware)	01.03.00
Version	12	Loaded DoA	0009536DE8D4		
Latest download	14/04/2025 11:27:26	Stored DoA	0009536DE8D4		
Description	Media coupler	Installation code	1570		

Log messages at the bottom:

```

24/04/2025 18:34:31: Start Application
24/04/2025 18:34:31: [SUCCESS]: End of method GetDevicesFromEts.
24/04/2025 18:34:36: [SUCCESS]: Connecting with Coupler Individual Address 1.2.1 ...success
24/04/2025 18:34:53: [SUCCESS]: method GenerateAndStoreNewPinCode - Installation Code stored is 0x1570
  
```

The right-hand side provides information about the media coupler and its configuration.

### 7.4.3.8 Creating an installation code

For each new system, a new system code must be issued so that the affected system is separate from all other systems.



#### Attention

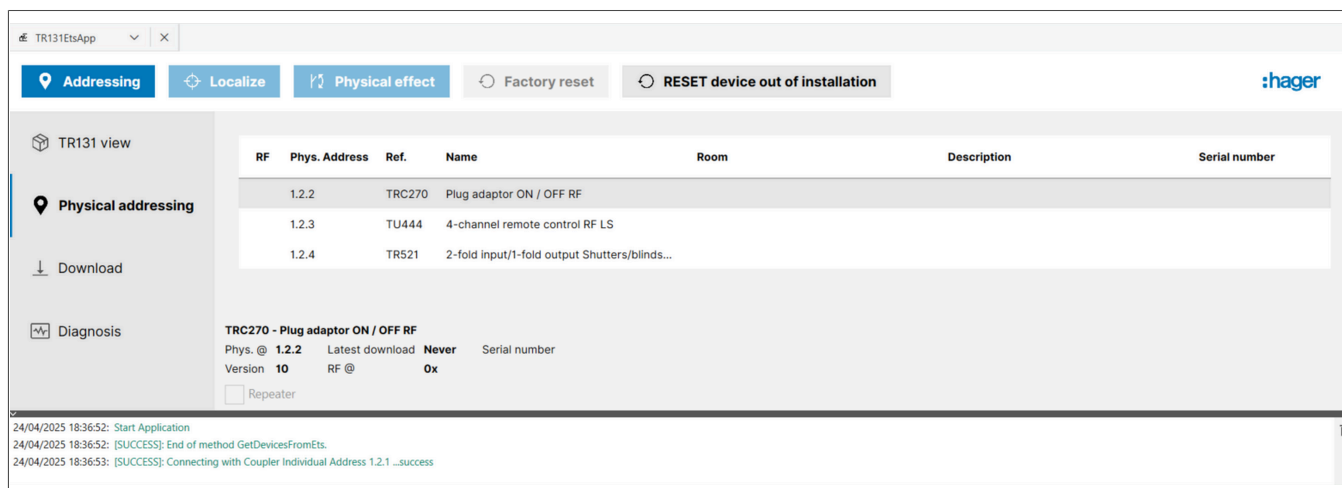
Pressing this button and confirming the new system code makes it impossible to continue programming products that have already been configured.

### 7.4.3.9 Physical addressing view

This screen enables the detection of the radio products of the system and the assignment of a physical address.

Click on the button **Phys. Adr. Programming** in the menu. The following display appears:






The right pane shows the tree structure of the radio line; it corresponds to the tree structure in the ETS.

In the right-hand window, the following appears:

- A list of compatible radio products that can be programmed using the plug-in,
- A detailed information and description of the selected product.



*If the symbol  appears before the physical address of a product, it means that the product is recognised by the media coupler and has been assigned a physical address.*

### 7.4.3.10 Localisation

This function allows you to localise a sending product.

Follow the on-screen instructions to localise the product in the list.

## 7.4.4 Downloading the physical address

### 7.4.4.1 In a bi-directional product:

- Select a bi-directional product from the list of inherited and/or recognised products.
- Click the **Addressing** button in the top menu bar to display the following screen:

TR131 - Physical addressing

Device search

Fix address

Physical effect

:hager

Available devices

1.2.4 - TR521, 2-fold input/1-fold output Shutters/blinds emb. RF

Phys. Adr.	Ref.	Name	RF ver.	Serial Number
------------	------	------	---------	---------------

Display devices : ☒ compatible, (0) ☐ detected, (0)

The **Product Search** button enables detection of all bi-directional radio products within range in factory setting operating mode.

The **View Devices Compatible** option allows you to filter the product list to display only those products that have the same reference as the selected product.

- Click the **Search Product** button to display the following search screen:

Device search

1 detected device(s)

Cancel

When the process is complete, the search screen closes.

The list of compatible products within range appears,

- Use the **Activate Device** button to locate the desired product,
- Select the desired product,
- Click the **Assign Address** button

Writing individual address

1.2.4: TR521 - 2-fold input/1-fold output Shutters/blinds emb. RF

Cancel

The physical addressing of the product takes place. The product now belongs to the system.

### 7.4.4.2 In a product with an addressing button

- Select an addressing button from the list of reported and/or detected products,
- Click the **Addressing** button in the top menu bar to display the following screen:

**TR131 - Physical addressing**

Device search Fix address Physical effect

Available devices 1.2.2 - TRC270, Plug adaptor ON / OFF RF

Phys.Adr.	Ref.	Name	RF ver.	Serial Number
-----------	------	------	---------	---------------

Display devices : ☒ compatible, (0) ☐ detected, (1)

By pressing the **Product Search** button, all radio products within range can be detected with an addressing button in factory setting mode.

The **View Devices Compatible** option allows you to filter the product list to display only those products that have the same reference as the selected product.

- Click the **Search Product** button to display the following search screen:

**Device search**

1 detected device(s)

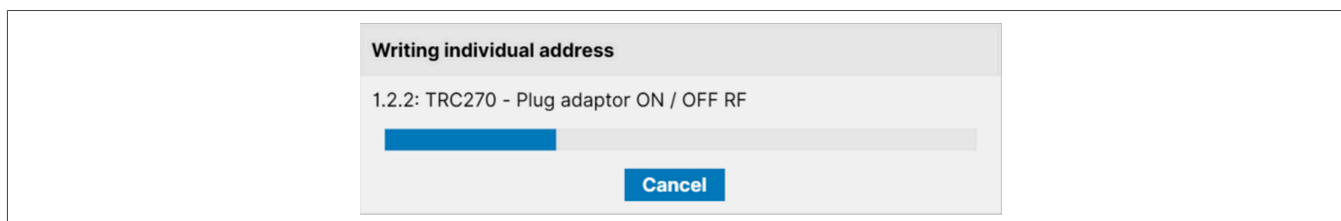
Cancel

Press the programming button of the product to be addressed.

When the process is complete, the search screen closes.

The list of compatible products within range appears,

- Select the desired product,
- Click the **Assign Address** button.



The physical addressing of the product takes place. The product now belongs to the system.

### 7.4.5 Factory setting with ETS via media coupler

This function allows the product to be reset to its original configuration (factory setting). After a reset, the product can be used in a new system.

The radio products are set to the factory setting by means of a plug-in of the media coupler.

For a product that is part of the system (known in the media coupler):

- Select **Factory Settings** from the **Physical Addressing** menu, and then follow the on-screen directions,

For a product that is not part of the system (unknown to the media coupler):

- In the **Physical Addressing** menu, select **RESET, Product not in system** and select the product type.
- Unidirectional products,
- Bi-directional products,
- Products with an addressing button.

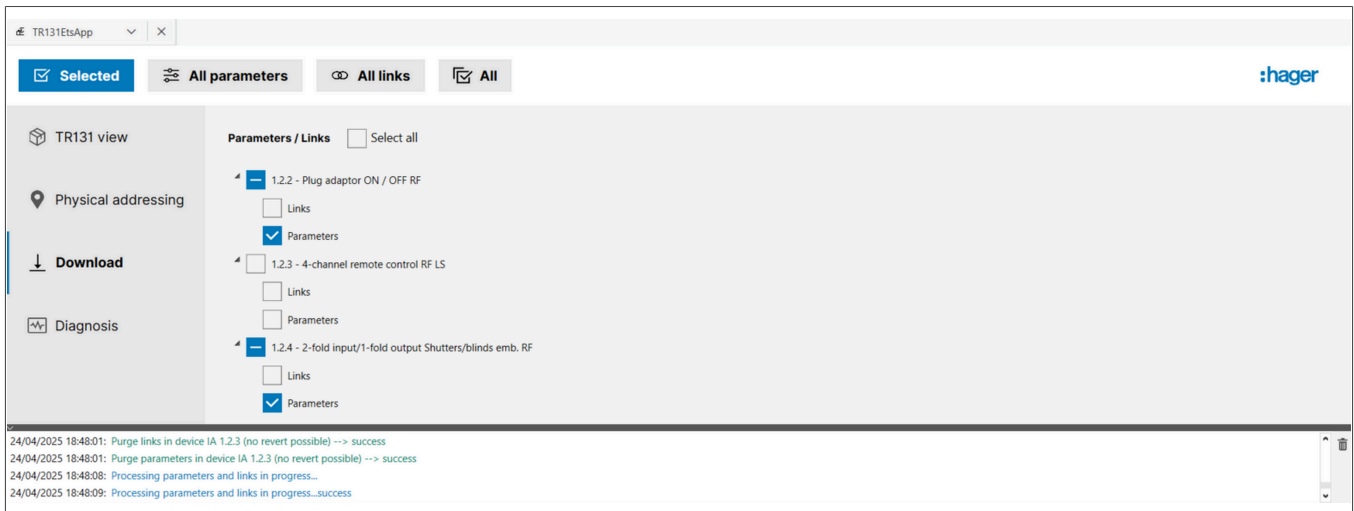


### 7.4.6 Downloading the parameters and links

The parameters and links of RF products are uploaded via the application in the ETS.

- Click the **Download** button in the menu.

The following display appears:



In the right pane, the parameters and/or connections to be loaded can be selected for each product.

Completing the loading operation by selecting the loading type in the top strip:

- **Selected** to load the selected parameters and connections,
- **All parameters** to load all parameters of all displayed products,
- **All group addresses** to load all connections of all products displayed,
- **All** to load all parameters and connections of all displayed products.

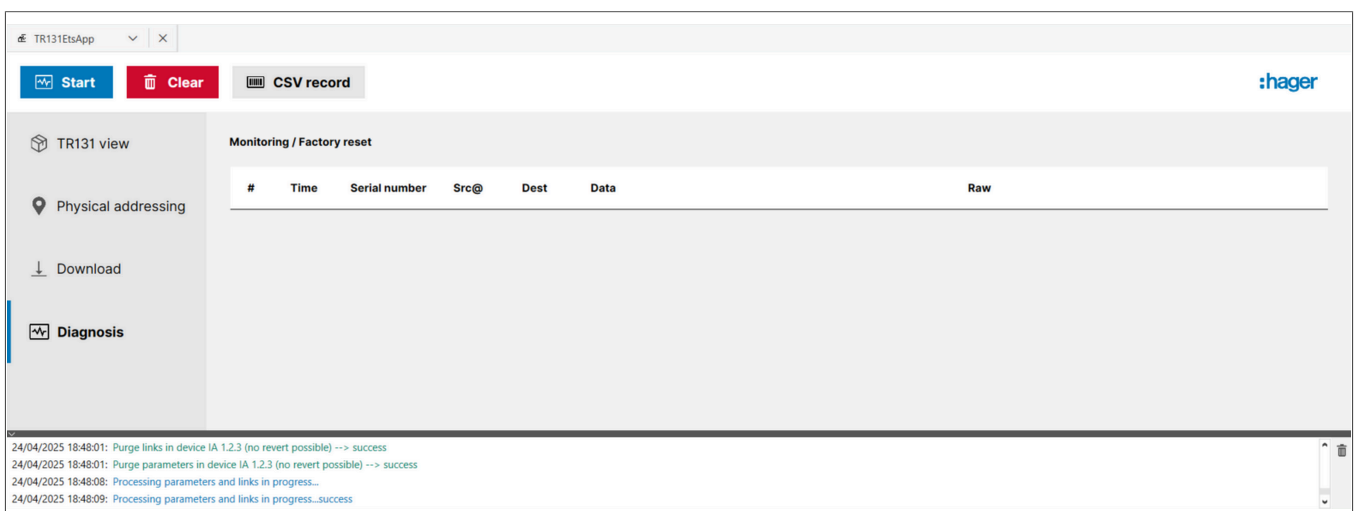


When this tab is opened, the plug-in shows the operations to be performed for an update of the system (checked by default) to the user.

### 7.4.7 Diagnostic screen

The diagnostic screen allows you to view radio traffic.

- To activate the screen, click **Diagnostics**.



- Click **Start** to start the diagnostics  
The radio telegrams are listed in the window on the right.
- Click **Stop** to stop the saving process,
- Click on **Delete** to delete the list,
- Click **CSV Storing** to save the telegrams in a CSV file.

Proceed as follows to save the telegrams in a CSV file:

- Click **CSV Storing** and select the name and location of the CSV file,
- Click **Start**,
- Click **Stop**,
- Open the CSV file to see the radio telegrams.

## 7.5 Dismantling

### Removing the bus connection terminal

- ☑ The bus voltage is switched off.
- Remove cover.
- Removing the bus connection terminal from the device.

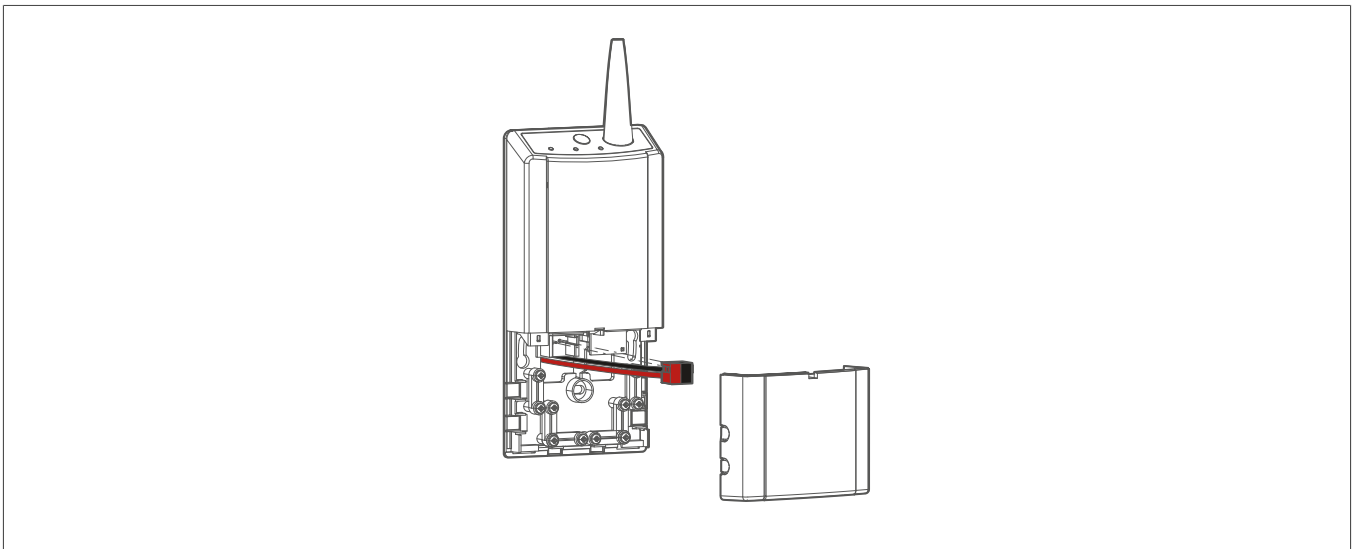


Fig. 17: Removing the bus connection terminal

### Dismantling the device



Before disposing of the device or in the event of a warranty, the data stored on the device must be deleted professionally and against access by third parties.



- ☑ The cover and the bus connection terminal are removed.
- | Loosen the fastening screws and remove the device.
- | Isolate or cover the bus connection cable against contact.

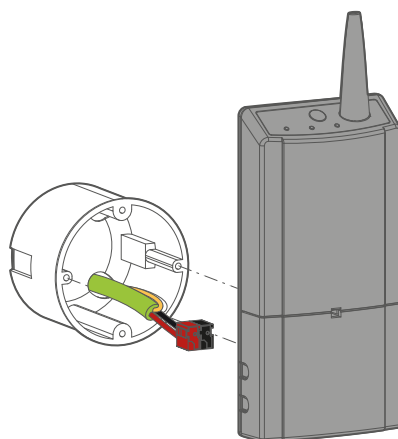


Fig. 18: Dismantling the device



Dispose of the device in line with the corresponding guidelines of the country ([see Disposal note](#) ) or, if you have a warranty claim, contact the point of sale ([see Warranty](#) ).

## 8 Appendix

### 8.1 Technical data

KNX Medium	TP1-256
KNX supply voltage	21 ... 32 V $\overline{\text{SELV}}$
KNX current consumption	4 mA
Number of radio channel outputs	max. 512
Number of radio channel inputs	max. 512
Radio transmission frequency	868.3 MHz
Radio transmission power	25 mW
Receiver category	2
Transmitter duty cycle	1 %
<b>Radio transmitter range</b>	
in free field	max. 100 m
in buildings	max. 30 m
Degree of protection	IP30
Operating temperature	-5 ... +45 °C
Storage/transport temperature	-20 ... +70 °C
Dimensions	203 x 77 x 26.5 mm

### 8.2 Accessories

KNX bus connection terminals, 2-pole, red/black	TG008
KNX system cable, Y(ST)Y,2x2x0.8	
100 m	TG018
500 m	TG019
KNX system cable, Y(ST)Y,2x2x0.8, halogen-free	
100 m	TGZ181
500 m	TGZ185



#### Note

The KNX radio products listed here are examples only.

Further products of the KNX radio system can be found on our homepage [hager.com](https://www.hager.com).

### 8.3 Troubleshooting

#### Poor connection between media coupler and KNX radio device.

**The KNX radio device is in the radio shadow or positioned in the wrong place.**

💡 Remove radio shadows or reposition the KNX radio unit.

#### Bus operation not possible.

##### Bus voltage is not present.

💡 Check bus connection terminals for correct polarity.

💡 Check bus voltage by briefly pressing the programming button (Fig. 2/5), red programming LED (Fig. 2/6) lights up if bus voltage is present.

#### Operation by the KNX radio device does not work.

##### No power supply to the KNX radio device.

💡 Check the power supply of the KNX radio device.

##### KNX radio device is not configured.

💡 Check the configuration and parametrisation of the KNX radio device and adjust it if necessary.



💡 Check the filter table of the media coupler and adjust it if necessary.

## 8.4 Characteristics

Maximum number of TP-/RF transmissions	2048
Max. number of group addresses	254

## 8.5 EU Declaration of Conformity

Hereby Hager Controls declares that the radio system type media coupler TR131N is in compliance with the directive 2014/53/EU. The complete text of the EU declaration of conformity is available at the following Internet address: [hager.com](http://hager.com)

## 8.6 Disposal note



**Correct disposal of this product (electrical waste).**

**(Applicable in the European Union and other European countries with separate collection systems).**

This marking shown on the product or its documentation indicates that it should not be disposed of with other household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this device from other types of waste. Recycle the device responsibly to promote the sustainable reuse of material resources.

Household users should contact either the dealer where they purchased this product, or their local government office, for details of where and how they can take this device for environmentally safe disposal.

Commercial users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial waste for disposal.

## 8.7 Warranty

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

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

If you have a warranty claim, please contact the point of sale.



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