

The logo for Eltako Electronics is displayed within a blue rectangular background. The word "Eltako" is written in a large, white, cursive script font with a slight drop shadow. Below it, the word "ELECTRONICS" is written in a smaller, white, uppercase, sans-serif font, also with a slight drop shadow.

Eltako

ELECTRONICS

Operating Instruction

TF-IP-Con IV

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1. Description

TF-IP-Con IV receives EnOcean-signals of multiple Eltako-sensors and -actuators, especially of all Tipp-Funk®-models, and enables the encrypted access, internal and external, with the Eltako building radio-system-app GFA2 or via tablet.

2. General

To guarantee the proper function of the product, please read this manual carefully. The liability of the Eltako GmbH for defects is excluded, if these are caused by usage not according to the intended purpose or if the operating instructions were not correctly followed (incorrect installation, incorrect starting, operating error etc.).

The intended purpose of the TF-IP-Con IV is the bidirectional communication with EnOcean-radio signals and provision via Ethernet (TCP/IP).

3. Scope of delivery

- TF-IP-Con IV
- external power supply
- 1 x Ethernet connection cable 2m RJ45
- operating instruction (this manual)

4. Specifications

Processor:	Intel X1021
Memory:	1 GB DDR3 RAM + 4 GB eMMC
LAN:	1 x 10/100 Mbit Ethernet
Integrated EnOcean	868 MHz radio module (TCM310) ESP3
Electricity supply:	5 V
Plastic housing:	pure white glossy
Dimensions:	L x B x H: 165 x 70 x 35 mm with slots for wall mounting and plastic feet to arrange
Weight:	140 grams

5. Connections of the TF-IP-Con IV



figure 1: connections

Description of the connections from the left to the right:

Reset: Pressing the reset buttons restarts the device. The network configuration is not changed.

Power: Power supply 5 V (external power supply 5V 4A included)

Network: Ethernet-interface 10/100 Mbit

LED red: Power LED

LED green: During starting process

1. LED glows (initialization secures bootloader, loading Kernel etc.)
2. LED flashes (loading firmware)
3. LED off (firmware loaded, network address configured, device ready)

During operation

1. LED glows (at least 1 user is connected or the gateway has registered as IPG or GFVS)
2. LED off (no open connections)

6. First start

6.1 Commissioning

- Connect the external power supply to an 230V socket and connect it with the TF-IP-Con IV
- Connect the TF-IP-Con IV with an LAN-connection
- As standard DHCP is configured

i **Reference:** If the network configuration of the TF-IP-Con IV is configured with DHCP a DHCP-Server has to exist in the network

i The starting process can take several minutes

6.2 IP-Configuration

The software “Eltako-IP-configurator” is a tool for commissioning and configuration of the IP address of the TF-IP-Con IV. After successfully starting the TF-IP-Con IV and the software “Eltako-IP-configurator”, the device is detected in the local network. This process can take a while. The software can be downloaded via the Eltako-website.

6.3 IP-Configuration with the Eltako-IP-configurator

After start of the application you receive the following dialogue:

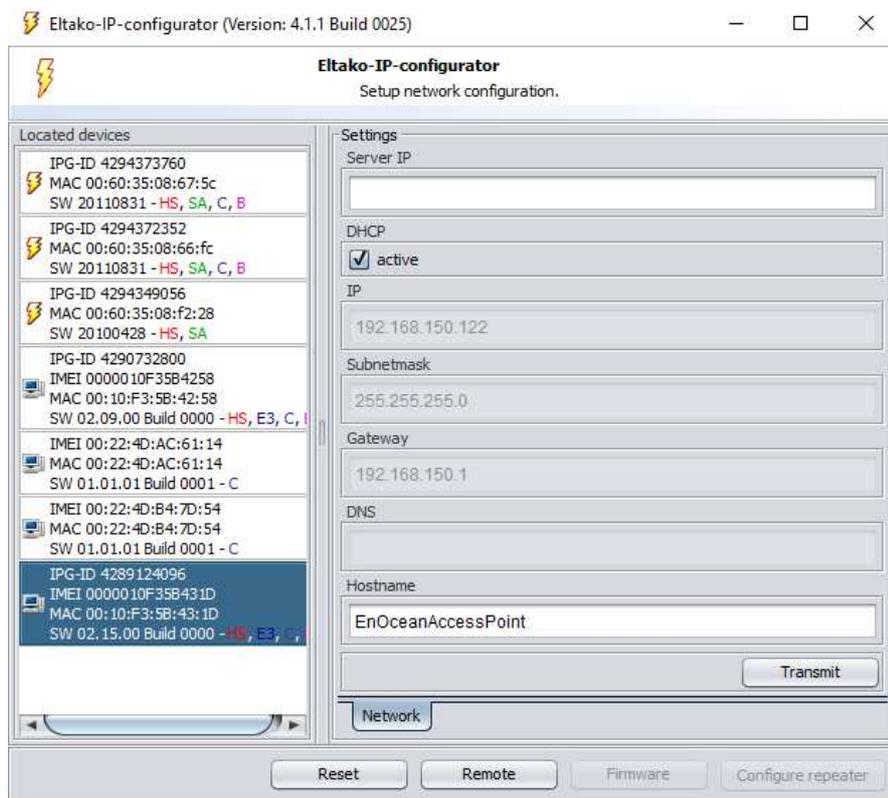


figure 2: Eltako-IP-configurator

In the section “located devices” all in the network existing TF-IP-Con IV, as well as possible other network devices from Eltako, are displayed. In the right section of the dialogue you find the input fields, which have to be filled in to configure a selected TF-IP-Con IV. The button “transmit” transfers the configuration settings to the selected TF-IP-Con IV.

To explain the necessary configuration a new TF-IP-Con IV will be configured.

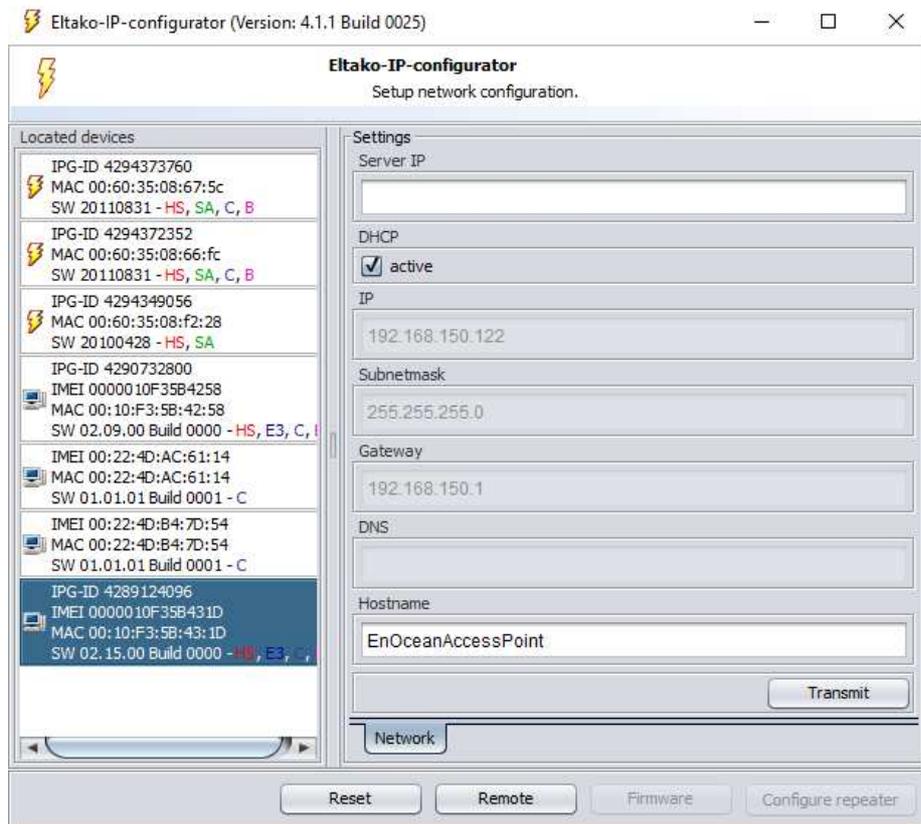


figure 3: configuration

Mark the favored TF-IP-Con IV. In the right section the current network-configuration is displayed. Here an ip-address was assigned to the device via DHCP.

If you wish a static IP-address for the device, remove the check for DHCP and fill in the requested parameters. For the usage of Eltako-quickcon[®]-technology the address of the gateway and the DNS-server is absolutely necessary.

The TF-IP-Con IV provides a mode for cooperation with Eltako GFVS or BSC-BoSe. For this purpose the ip-address of the Eltako GFVS-server or BSC BoSe-server has to be filled in the box „server ip“. For the operation as EnOcean- Gateway this setting is not necessary.

After registration of all necessary data for the configuration, these settings are transferred to the TF-IP-Con IV by clicking the button “transmit”. When the transfer is completed successfully, you receive the following message:

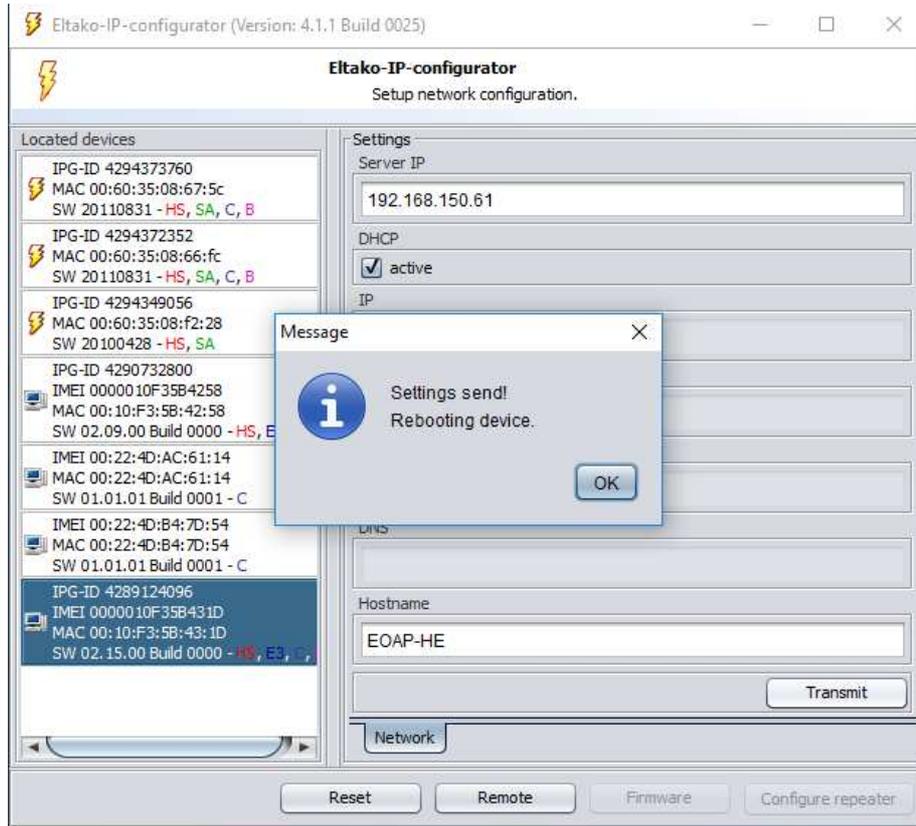


figure 4: configuration successful

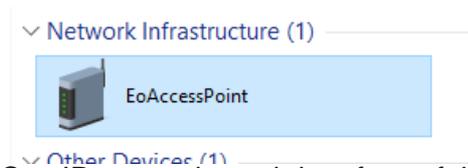
7. Access to the web interface

i The web interface is optimized for Firefox und Chrome. Using other browsers can cause problems.

7.1 Windows over UPNP

For easier detection of TF-IP-Con IV gateways in the network, the protocol UPNP (Universal Plug and Play) is integrated.

Open the explorer (button [Win] + [E]) and choose the network  Network symbol. In the right section of your explorer the TF-IP-Con IV is displayed.



A double click on the symbol of the TF-IP-Con IP opens the web interface of the device.

7.2 Direct access via browser

Open the browser and fill in the IP address of the TF-IP-Con IV in the address field with the following structure:

http://[IP-Adresse]:58256/



figure 5: direct access via browser

8. Status of the current network configuration

8.1 Via Eltako-IP-configurator

Start the “Eltako-IP-configurator” software. In the upper section of the window you find the, in your system existing, network interfaces. Choose the interface which is in the same network as the TF-IP-Con IV. After some time the TF-IP-Con IV IP should be displayed in the left section.

By marking the TF-IP-Con IV, the boxes in the right section will be filled in with the data of the network configuration.

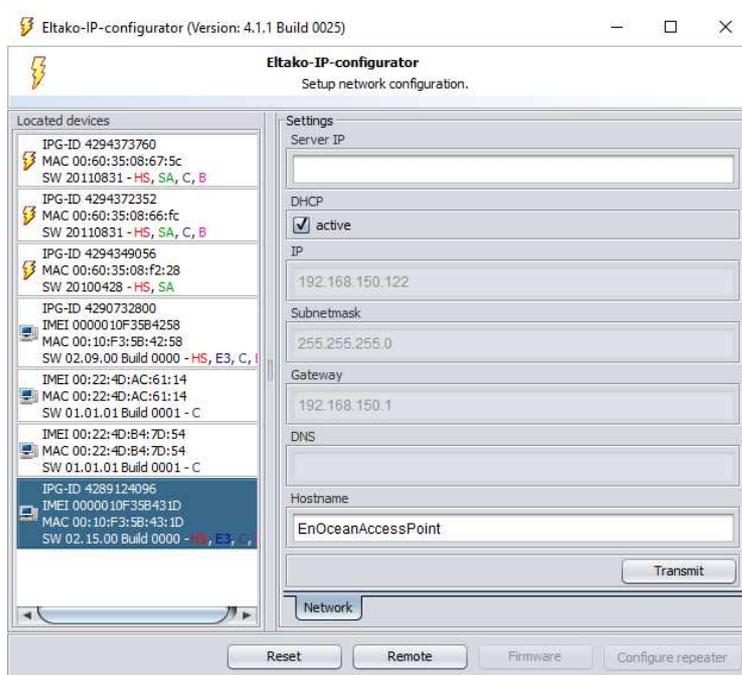


figure 6: configuration query via Eltako-IP-configurator

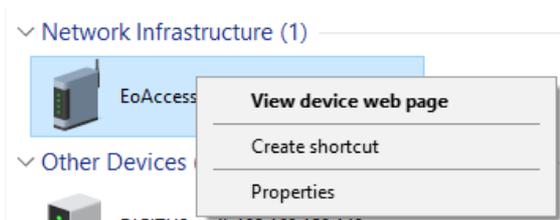


figure 7: menu "properties"

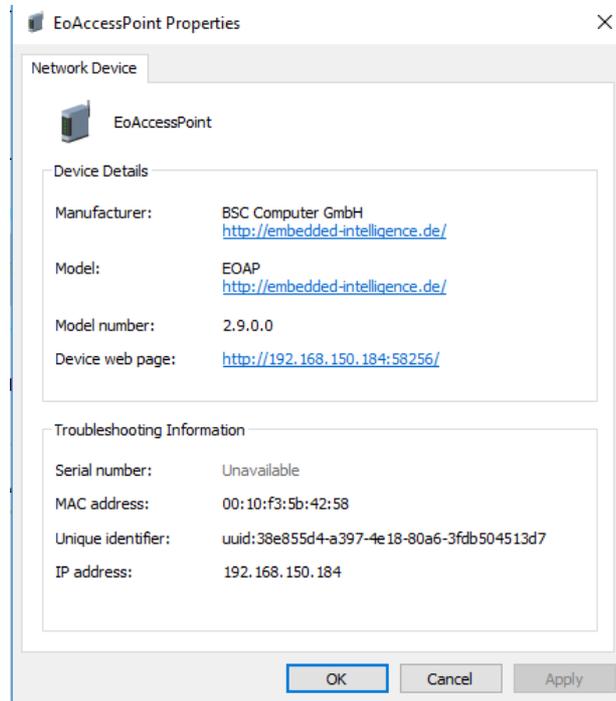


figure 8: properties of access Point

9. Registration at the web-interface

9.1 Registration via software “Eltako-IP-configurator”

The registration via the “Eltako-IP-configurator” takes place by choosing the required device and click on the button „remote“.

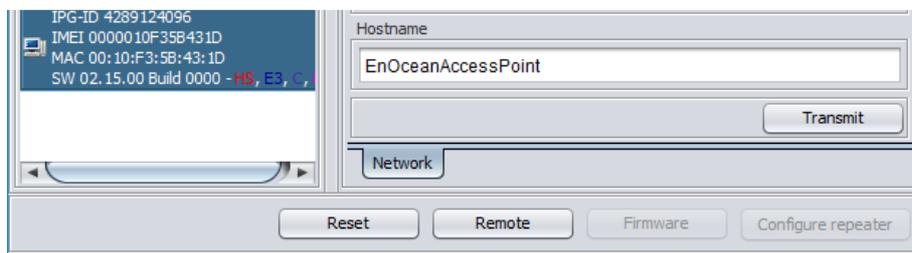
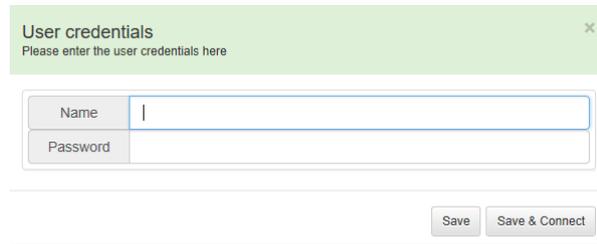


figure 9: registration via IP-configurator

A browser window opens, where you can fill in the registration data.

Click with the left mouse button on “user” and fill in your user credentials.



A dialog box titled "User credentials" with a close button (X) in the top right corner. Below the title bar, it says "Please enter the user credentials here". There are two input fields: "Name" and "Password". At the bottom right, there are two buttons: "Save" and "Save & Connect".

figure 10: user credentials

In delivery state: identification = admin and password = admin

Please mind capital letters.

! Reference: Change the preconfigured password immediate, so no unauthorized person can connect with the system (see section "user administration")

9.2 Registration via insertion of the ip address in the browser

Open your browser and fill in the ip-address (menu point 8) as well as colon "58256" in the address bar and press enter.

http://[IP-Adresse]:58256/

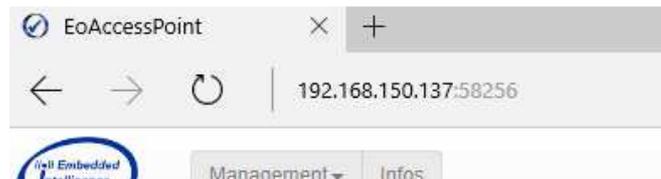
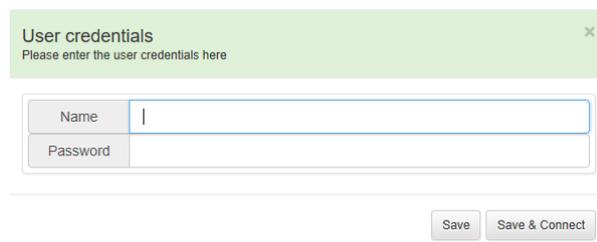


figure 11: browser

Example

Click with the left mouse button on the button „user „and fill in your user credentials.



A dialog box titled "User credentials" with a close button (X) in the top right corner. Below the title bar, it says "Please enter the user credentials here". There are two input fields: "Name" and "Password". At the bottom right, there are two buttons: "Save" and "Save & Connect".

figure 12: user credentials

In delivery state: identification = admin and password = admin

Please mind capital letters.

! Reference: Change the preconfigured password immediate, so no unauthorized person can connect with the system (see section "user administration")

10. System management

The menu point “system management” offers the possibility to integrate EnOcean-objects in the TF-IP-Con IV, user administration, software updates, system reboot and reset the system.

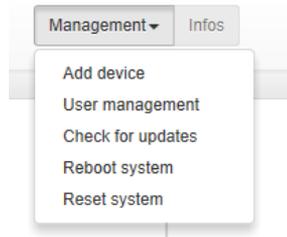


figure 13: system management

10.1 Add device

In this chapter you will find an instruction to integrate sensors and actuators.

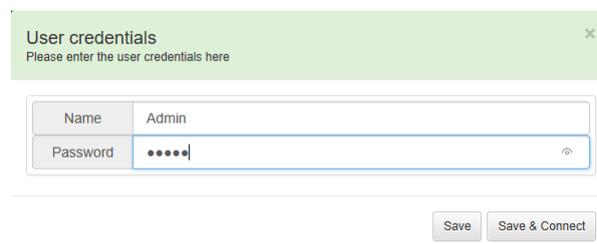
10.1.1 Registration at the web interface

Register at the web interface of the TF-IP-Con IV.



figure 14: registration at the web interface

Click with the left mouse button on the button „user „and fill in your user credentials.



A screenshot of a 'User credentials' dialog box. The dialog has a title bar with a close button (X). Below the title bar, it says 'Please enter the user credentials here'. There are two input fields: 'Name' with the value 'Admin' and 'Password' with masked characters '•••••'. At the bottom right, there are two buttons: 'Save' and 'Save & Connect'.

figure 15: user credentials

In delivery state: identification = admin and password = admin

Please mind capital letters.

! Reference: Change the preconfigured password immediate, so no unauthorized person can connect with the system (see section “user administration”)

For a temporary sign on and sign off the symbol  is available. If the color changes to green the login process was successful.

10.1.2 Teach-in sensors

Log in as “admin“, because only the administrator can add devices.

Pressing the button „management,, opens a menu where via “add device“new sensors can be added to the system.

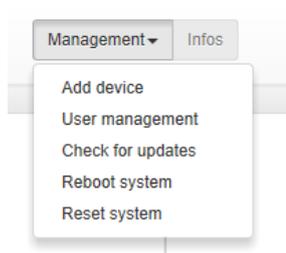


figure 16: add devicer

After a short moment a further window opens where the teach-in process can be implemented.

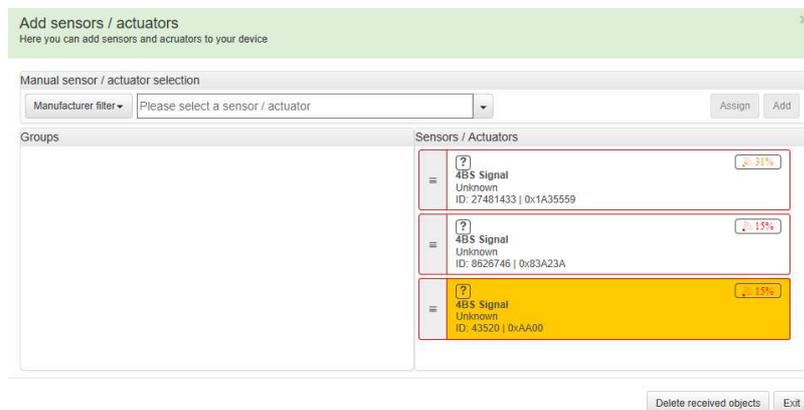
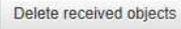


figure 17: teach-in process

In the left scope you find the established grouping. In the right scope all EnOcean-objects are displayed from which a signal was received. Received signals light up briefly. The list of the received signals can be emptied via the button  . All devices which should be added to the system must be assigned to a profile/device. Background of the “assignment” is that e.g. the signal of a switch with different definitions (on/off) is used in different actuators and sensors. To interpret the information of the signal correctly the system needs to know from which type of device the signal comes from.

10.1.3 Teach in sensors via transmitting a sensor signal

For Example an Eltako FTKE is taught-in.

Empty the list of the previous received EnOcean signals. Activate the Eltako FTKE and select the received signal. Now the system has to be informed how to interpret the signal. Therefore different possibilities are available.

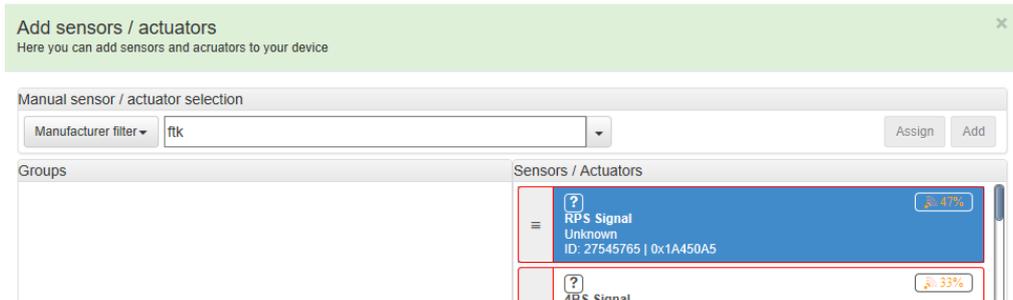


figure 18: teach- in sensor signal

1. Sensor filter

By clearing the check at the function type all appropriate EEPs/devices are removed from the selection list.

2. Manufacturer filter

By clearing the check at the manufacturer type all appropriate devices of the manufacturer are removed from the selection list.

3. Direct input

Via direct input of the device type the selection list is reduced.

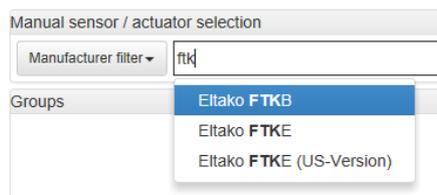


figure 19: direct input device type

4. Extended device list

By placing a check, further EEPs/devices are displayed.

Choose “assign”.

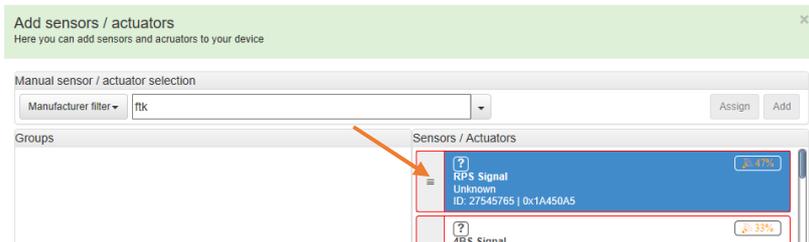


figure 20: assignment

The labeling and color of the signal change. Now drag the device in your requested group. After closing the “teach-in” window the taught-in FTKE is displayed in the selected group.



By receiving the next signal the frame color change to green and the status of the FTKE change according to the received signal.

10.1.4 Teach in actuator

For example an FSSA-230V is taught-in. Empty the list of the previous received EnOcean signals. Arrange the transmission of a confirmation signal of the FSSA-230V (on/off switching the plug adapter) and select the Signal in the right section of the display. Now change to the direct input and enter the actuator type.

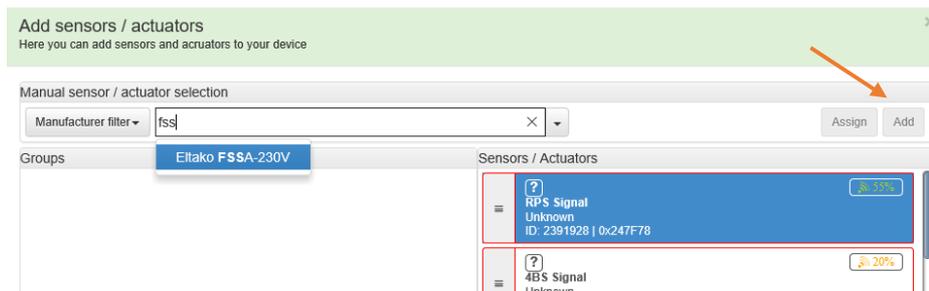


figure 21: add sensor/actuator

Assign the signal of the Eltako FSSA-230V to the profile. Drag the actuator in the requested group. After closing the “teach in” window the actuator is displayed in the selected group. By receiving the next signal the frame color change to green and the status of the FSSA-230 changes according to the received signal.



Now the status of the plug adapter/actuator can be visualized. To transmit switching commands to the plug adapter/actuator, click on the three parallel lines. A menu opens where the “teach-in” signal can be transmitted:

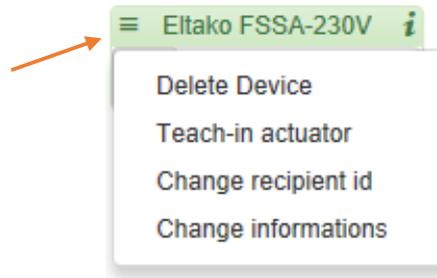


figure 22: teach-in signal

Set the FSSA-230 in the “teach in” mode and click on “teach-in actuator”. Now the actuator can be switched by the TF-IP-Con IV.

10.1.5 Teach-in actuator via template

As in the chapter above as example an Eltako FSSA-230V is used. This method is suitable as template for later connection from EnOcean devices with the used templates.

Fill in the requested device/EEP in the box of the manual selection.

Empty the list of the previous received EnOcean signals and click “add”.

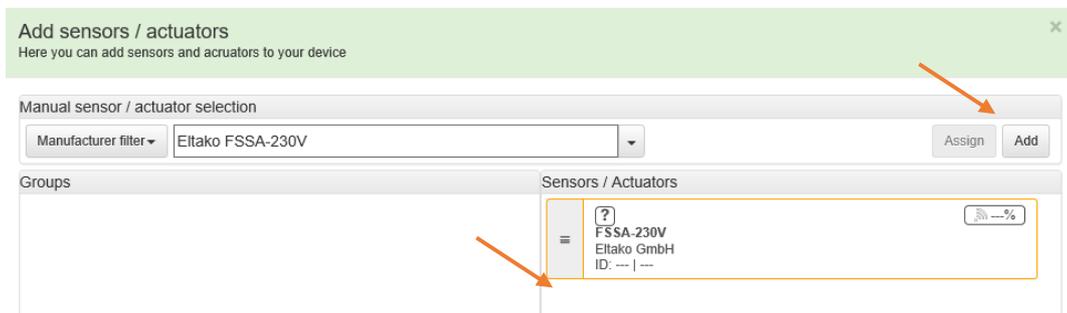


figure 23: add sensor/actuator

A yellow bordered EnOcean-object is displayed in the list of the received EnOcean-signals. Drag this object in your requested group.

After closing the “teach-in” window the object is highlighted in red in the appropriate group.



To connect object to actuator and actuator to object proceed as follows:

1. Click on the three parallel lines and then on the menu point “change recipient ID “



figure 24: change recipient id

Fill the actuator ID in the box.

Hexadecimal with [0x] at the beginning

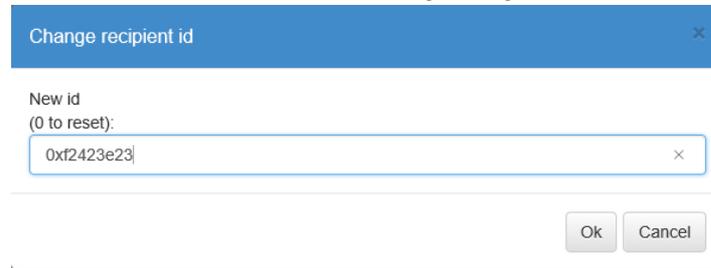


figure 25: change recipient id

Decimal

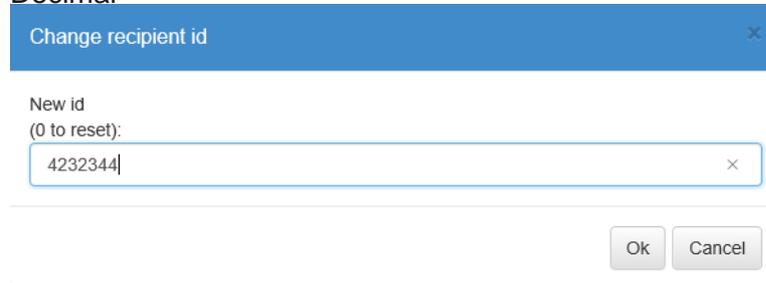


figure 26: change recipient id

2. Click on the three parallel lines again.

Set the plug adapter FSSA-230V in the “teach-in” mode and click on the menu point “teach-in actuator”.

With point 1 you have connected the plug adapter/actuator to the TF-IP-Con IV to visualize the status of the FSSA-230. With point 2 the connection from the TF-IP-Con IV to the plug adapter and therefore the possibility of switching via the TF-IP-Con IV is enabled.

10.2 User management

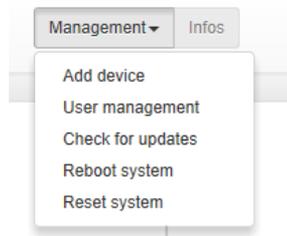


figure 27: user management

Under “management“->“user administration” you can add or delete user.

10.2.1 Create user

In the right section of the grey frame of the user display you find a “+“ sign.

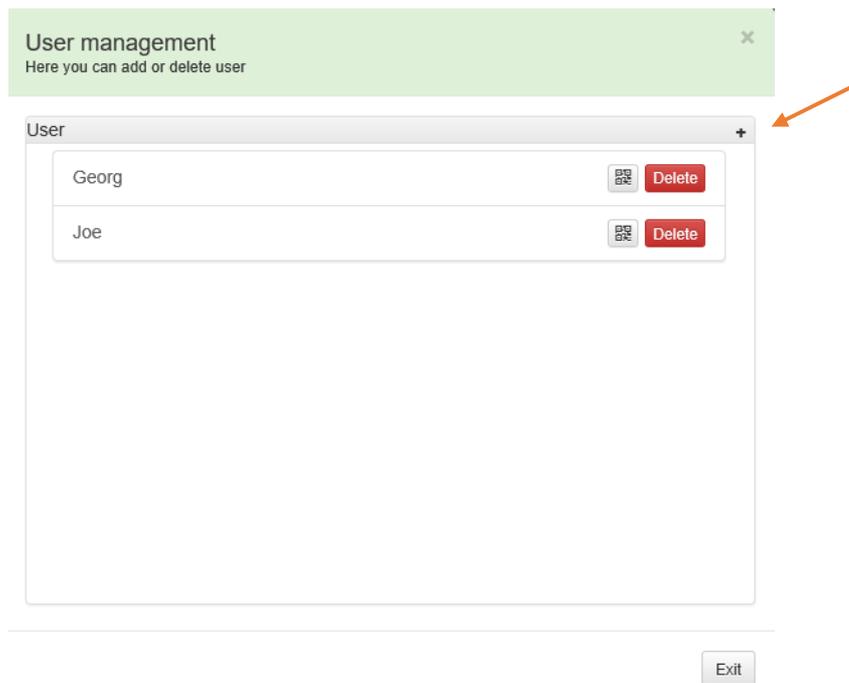


figure 28: user management

With a click on the plus a window opens to add a new user. Fill in the username and press enter.

In the following window, fill in the password of the user.

10.2.2 Delete user

Klick delete in the user overview at the user you want to remove.

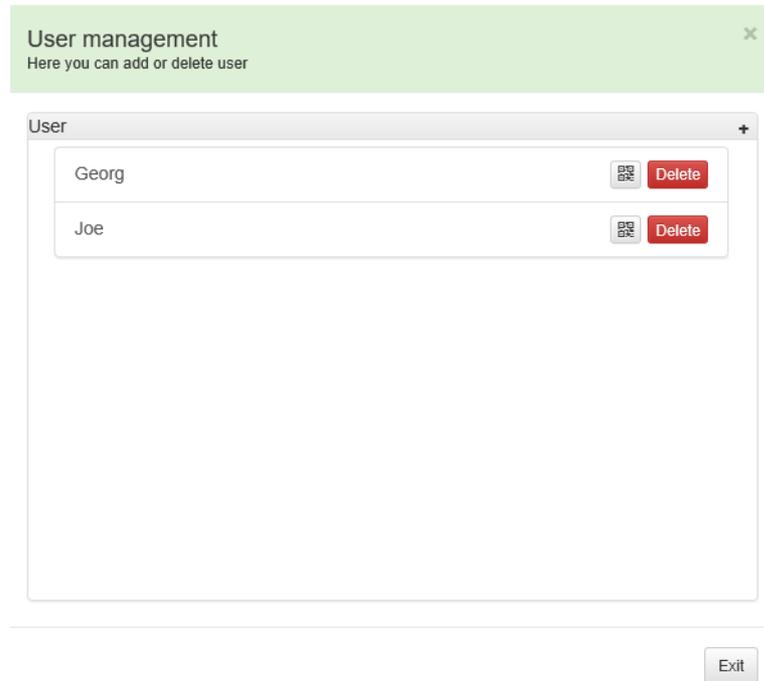


figure 29: user management

10.2.3 Change password

Log in with the appropriate user ID. After successful log in choose the registration name and click on "change password".

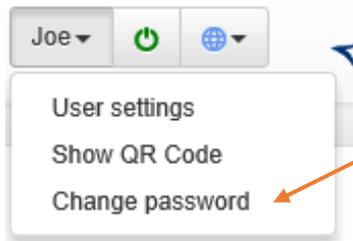


figure 30: change password

Now fill in the new password. With the next log in the new password is valid.

10.3 User settings

Log in with the appropriate user ID. After successful login click on the registration name, and then on "user settings".

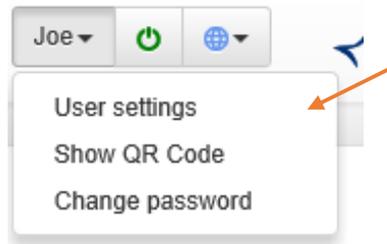


figure 31: user settings

A window with setting options opens.



figure 32: edit user settings

- Default the standard language
- Default the e-mail address where the system settings are sent
- Activate/deactivate e-mail messages

10.4 Client mobile access

10.4.1 Via user account

Log in with the appropriate user ID. After successful log in click on registration name and then on “display QR code”.

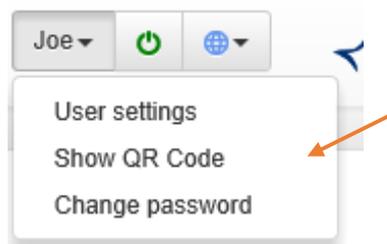


figure 33: show QR Code

The system creates a QR-Code, which includes all information for the setup of a GFA2 client.

Start the GFA2 app and add a new profile. Scan the QR-code.

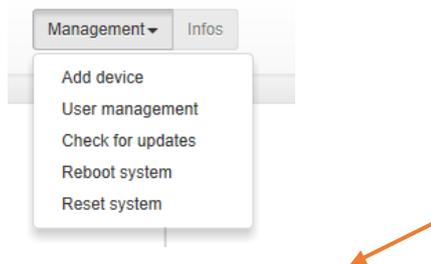
The maximum are 5 connections simultaneously. A user profile can be utilized on different devices. A connection via the admin-account is only possible once.

The GFA app you get via the following link:



figure 34: gfa 2 Link

10.4.2 Via admin log in Open user administration..



Behind the symbol  in the user overview hides the user generated QR-Code.

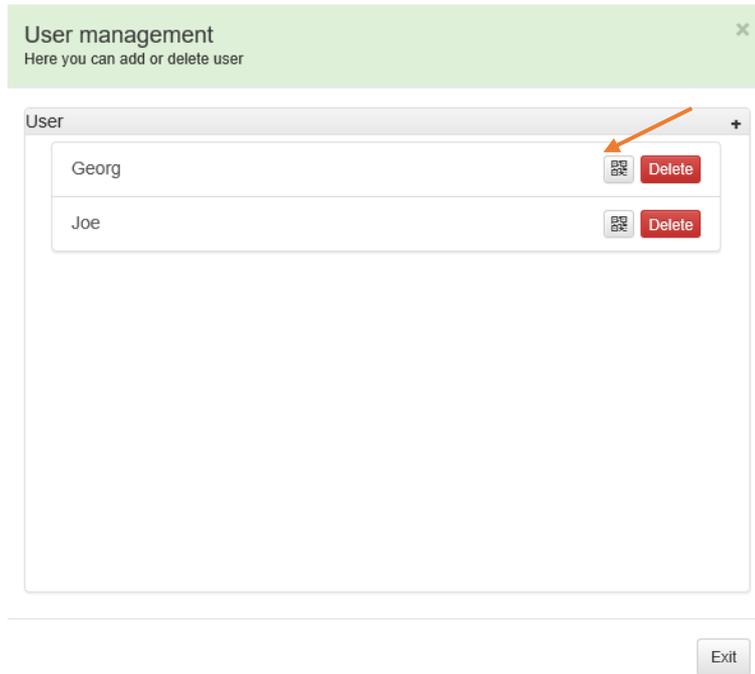


figure 35: QR Code

10.5 Reset password

If you forgot your password there is a possibility to reset this. Therefore an e-mail address of the user has to be deposited beforehand (chapter 10.3).

As long as no user is registered at the TF-IP-Con IV you can reset the password via “administration”.



figure 36: reset password

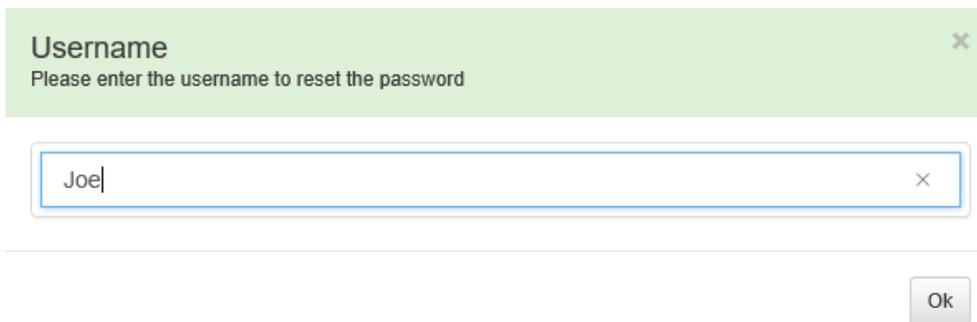
A screenshot of a dialog box titled 'Username' with a close button (X) in the top right corner. The text inside the dialog says 'Please enter the username to reset the password'. Below the text is a text input field containing the name 'Joe'. At the bottom right of the dialog is an 'Ok' button.

figure 37: reset password

Fill in the user name. After confirmation a mail to the deposited e-mail account is sent.

10.6 Change language

You can switch between the available languages any time. A restart is not necessary.



figure 38: select language

10.7 Updates

After commissioning, TF-IP-Con IV should be checked for updates.

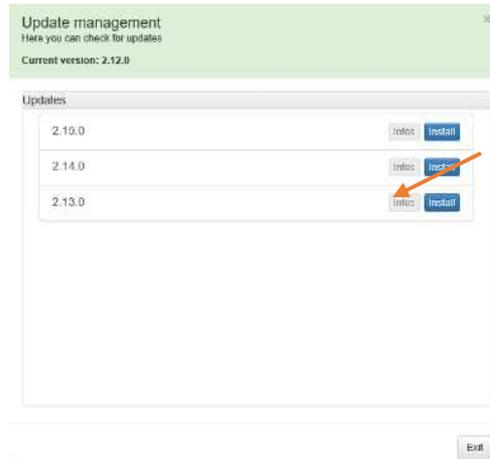


figure 39: update management

If updates are available only the current version has to be installed.

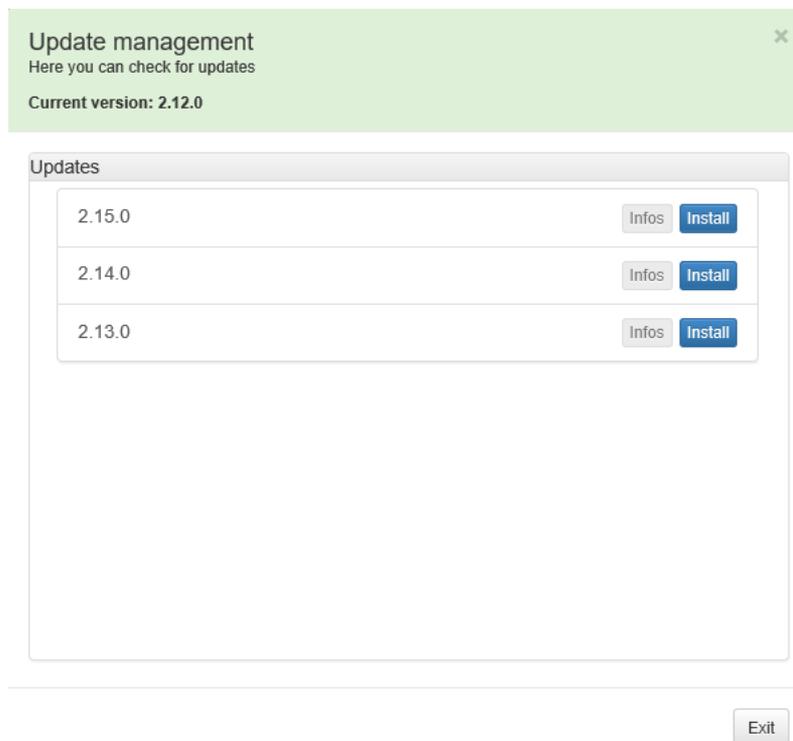


figure 40: update management

10.8 System restart

As admin you can restart the TF-IP-Con IV via remote.

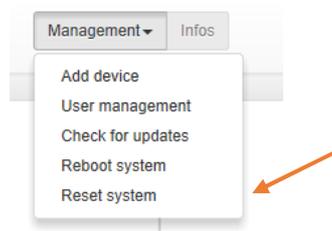


figure 41: restart system

10.9 Reset the system

The menu point “reset system“set the TF-IP-Con IV back to factory settings.



figure 42: factory settings

! Reference: There is no confirmation prompt. All settings and data will be deleted.

11. Group Control

In the left section of the web interface you find the group overview. For a better overview you can arrange the EnOcean-components in a logical structure.



figure 43: groups

11.1 Create a group

To create a group, click on the plus sign in the section of the group overview or select an existing group and click on the group again. Fill in the requested name and press enter.



figure 44: groups

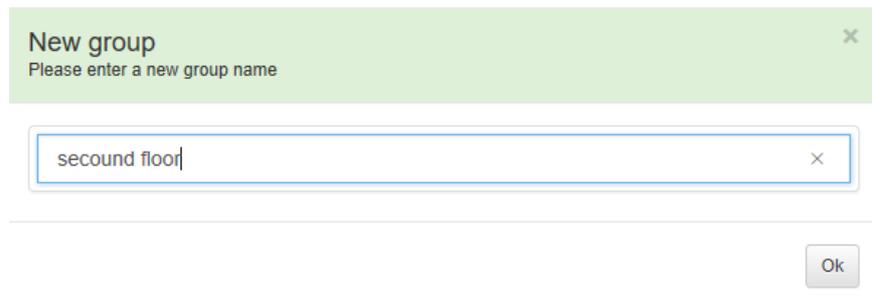


figure 45: name a new group

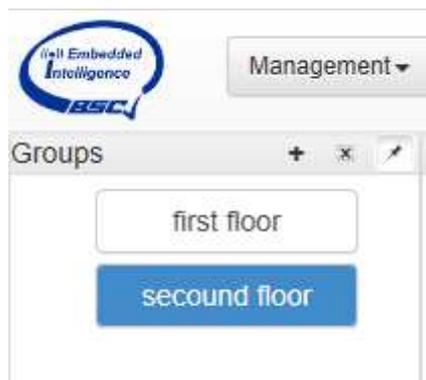


figure 46: create a group

11.2 Moving a group

Select the group you want to move and drag it with pressed mouse button to the new location. During the movement a line is displayed or the group appears light blue.

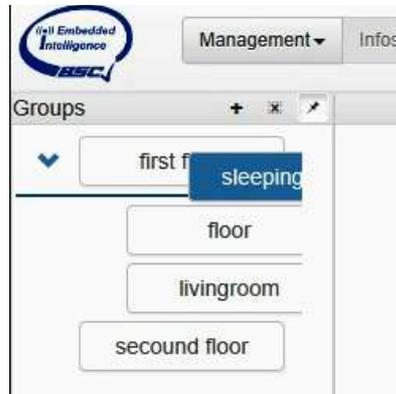


figure 47: moving a group



Figure 48: moving a group

If you drop the group when the line is displayed the group is paste at the position. If you drop the group over an overlaid group the group is paste as subgroup.

11.3 Rename a group

Select the group and then click on the group again. Choose “rename”, fill in the new description and press enter.

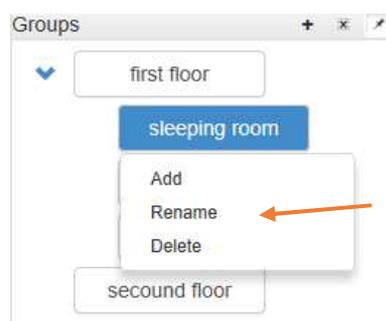


figure 49: rename a group

11.4 Delete a group

Select the group and then click on the group again. Choose “delete”.

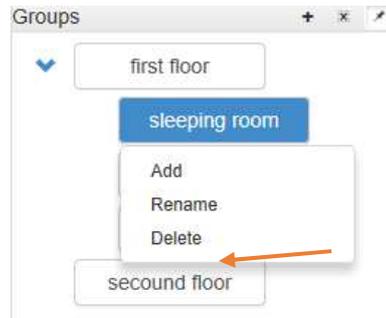


figure 50: delete a group

If the group has subgroups these are moved to the highest level. If the group has objects the group membership is deleted. The objects themselves remain.

11.5 Hide group indication

Via the icon  you have the possibility to hide the group indication. By moving the mouse pointer to the symbol , the group indication is inserted temporarily.

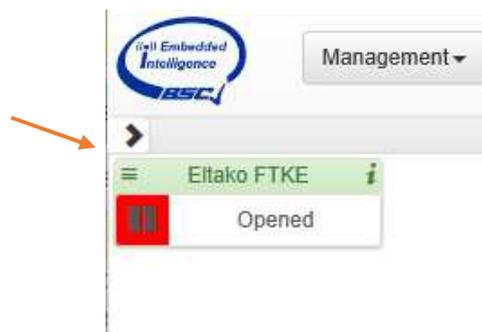


figure 51: hide group indication

If you click again, the group indication is fixed visible.

11.6 EnOcean-objects without group membership

New EnOcean-objects which, when added, have not been moved to a group and therefore have no group membership are displayed in all groups. By click on , in the group overview they can be made visible.

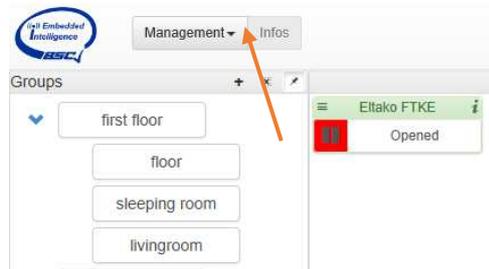


figure 52: objects without group membership

These objects can be reassigned anytime by dragging to a group.

12. Properties of EnOcean objects

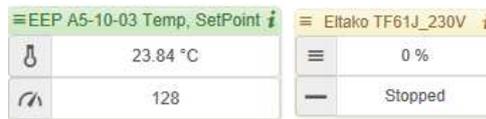
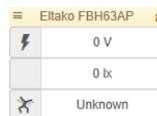


Abbildung 53: properties of objects



A in the system located EnOcean-Object has a section to set general, type independent properties and the information section.

12.1 General settings to objects

By click on the three parallel lines () the section with the general settings opens. This menu contains more or less menu points, according to the EnOcean object. The meaning of the additional menu points can be found in the description of the EnOcean object.



figure 54: settings to objects

12.1.1 Delete devices

By “delete” a device is deleted from the TF-IP-Con IV. If the object had functions, they are marked as deleted at the TF-IP-Con IV. By the internal system of the assignment of functions-ID an assignment of the free ID to a, later assigned EnOcean object is possible. This means a later function can send with an address that was assigned before now. Therefore it is highly recommend to delete the function in the appropriate actuator before deleting the object.

12.1.2 Teach-in actuator

By clicking on the menu point “teach-in actuator” a “teach-in” signal is send. Read the manual of the appropriate actuator carefully. The teach-in signal varies according to the actuator. If the manual refers to settings “GFVS”, these have to be used for the teaching process. Otherwise a direction switch signal is send by the TF-IP-Con IV.

12.1.3 Change receive ID

The receive id represents the status signal of an actuator. Here the id of the actuator has to be filled in (see teach-in actuator).

12.1.4 Change information

Here you can deposit further information for the better recognition of devices.

Change device informations
✕

Here you can change the device informations

Informations	
ID	4ffa25b0-24d8-4562-a198-b00859346eab
Room	
Floor	
Info	Eltako TF-FKE
Details	

figure 55: change device information

12.2 Info

Under the symbol  you find information to the EnOcean-object.

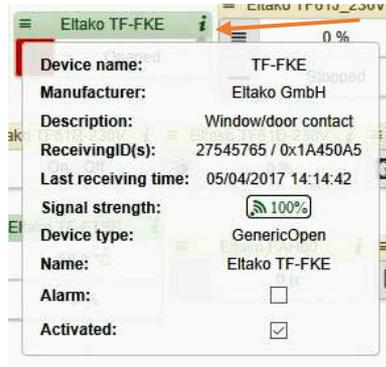


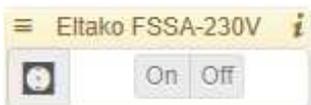
figure 56: information to object

- Object-ID: unique object-ID
- Device type: device group
- Name: name of device
- Alarm: status of alarm function
 - With the setup of “sending messages”) a e-mail is send (chapter 10.2.1)
- the status of the device property.
- Activate: : status of the object
 - Object highlighted red deactivated
 - Object highlighted in other colors activated
 - see chapter 12.3

12.3 Object color



- Object as template in TF-IP-Con IV integrated (further information see chapter 10.1)



- Object integrated in TF-IP-Con IV via received signal.
- Teach-in signal was sent at least once
- no status information received



- status signal received

13. Messages

Messages are status messages about value changes. Messages can be activated/deactivated for the individual properties of the EnOcean object.

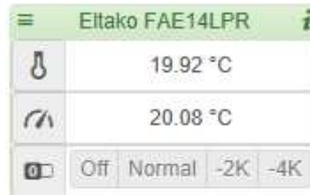


figure 57: messages

13.1 Turn on messages

For example all value changes of the set temperature of a FAE14LPR should be recorded. Click on the symbol of the characteristic  (set point). Drag the mouse to “turn on messages” and activate messages on.



figure 58: turn on messages

After a while at the right border of the selected characteristic a mark for the message is displayed. With every message (here change set point) the number is incremented.

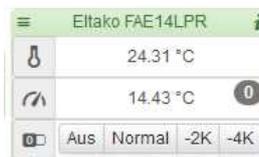
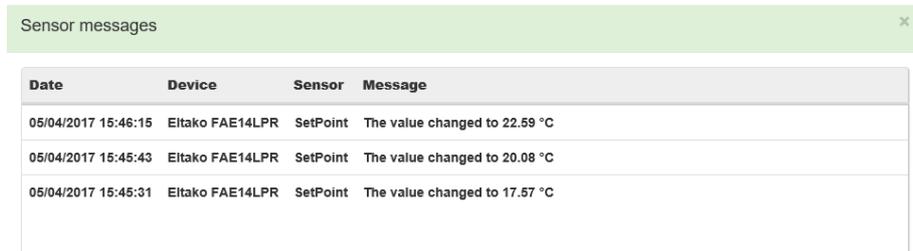


Abbildung 59: change set point

Via “retrieve messages“, you can understand the dates of the changes and the changes of the set point.

A screenshot of a web interface window titled "Sensor messages" with a close button (x) in the top right corner. The window contains a table with four columns: "Date", "Device", "Sensor", and "Message". The table lists three entries of temperature changes from a device named "Eltako FAE14LPR".

Date	Device	Sensor	Message
05/04/2017 15:46:15	Eltako FAE14LPR	SetPoint	The value changed to 22.59 °C
05/04/2017 15:45:43	Eltako FAE14LPR	SetPoint	The value changed to 20.08 °C
05/04/2017 15:45:31	Eltako FAE14LPR	SetPoint	The value changed to 17.57 °C

Abbildung 60: messages

If you activate “acknowledge all messages” all messages are set to “read”.

The menu point “delete all messages” deletes all deposited messages.

14. Technical support

For support please contact:

ELTAKO GmbH

Hofener Straße 54

70736 Fellbach

Tel. 0162 2575-124, -125, -126, -127 Fax 0711 5183740 or via e-mail:

Technik-Beratung@eltako.de