SpaceLogic KNX Hybrid Module

LSS100400

User Guide

This document describes the SpaceLogic KNX Hybrid solution (features and user interface), which consist of a DIN device and the plugin.

Release date 03/11/2023

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Table of Contents

Introduction

This document describes the Hybrid plugin, the LSS100400 SpaceLogic KNX Hybrid Module features, and user interface.

LSS100400 SpaceLogic KNX Hybrid module (hereinafter referred to as Hybrid Module) is a device that provides wireless connectivity to Wiser for KNX and spaceLYnk logic controllers, allowing them to integrate the Zigbee® wireless devices.

It supports most of the Schneider Electric Wiser wireless catalog devices. The supported devices may vary depending on the country and will evolve overtime.

The Hybrid Module is designed for residential and commercial installations and for a maximum of 50 direct ZigBee devices connected in the system. Consider this when defining your architecture.

Wiser for KNX and spaceLYnk are multi-protocol logic controllers (KNX, Modbus, BACnet...).

By adding a Hybrid Module you can integrate ZigBee wireless devices communicating over ZigBee 3.0 protocol.

- To do so, download the Hybrid plugin from the Marketplace of your Wiser for KNX/spaceLYnk controller and pair the ZigBee devices.
- All configuration steps are done in the plugin running in the controller. You do not need any other software.
- You can control your ZigBee devices from your KNX installation and vice versa (bidirectional communication).
- Wiser for KNX users can control their ZigBee devices via the Wiser KNX mobile app (Android and iOS) – see the user guide for the app here https://www.productinfo.schneider-electric.com/wiser-knx/.

Important:

The ZigBee devices create a mesh network, allowing communication between them. While mains-powered wireless devices also act as routers and forward the information to other wireless devices, **battery-powered devices do not**. Please consider this when installing your device.

Depending on your type of installation (house with multiple floors, enclosure in cave, enclosure in metal, buildings with large m²), you may have troubles with the communication between ZigBee devices. To avoid that, you have the following options:

- Connect the antenna and install it out of the cabinet.
- Add a mains-powered device in between to extend the mesh network (e. g., Connected Socket, Smart Plug, Micromodule Relay, etc.).

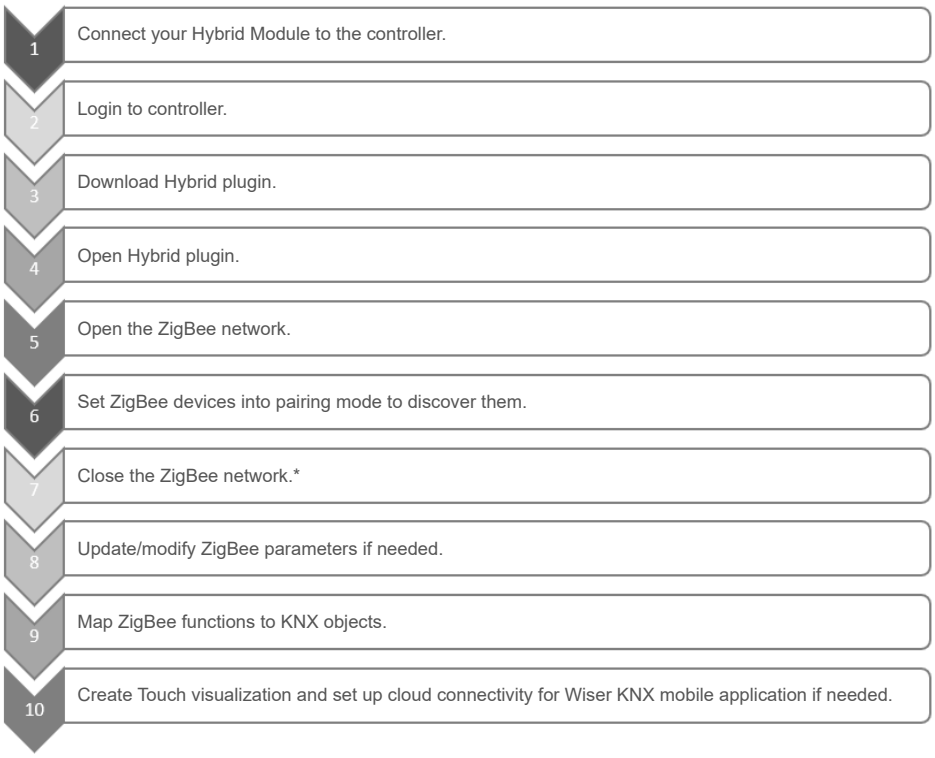
Hybrid Module in the cabinet

Module antenna outside the cabinet

Important: External housing may be cleaned with a damp cloth if it becomes dirty, do not use any cleaning agent, especially alcohol.

Workflow

This overview shows the sequence of the entire process of commissioning the Hybrid Module up to visualization and integration with the Wiser KNX application.



*If the ZigBee device starts updating its firmware, it closes the network, and other ZigBee devices do not appear in the list of discovered ZigBee devices.

The firmware update process can take up to 20 minutes.

After the firmware update is complete, open the network again and continue pairing the other ZigBee devices.

Hybrid Module Firmware Upgrade

The firmware is distributed as part of the Hybrid plugin. Once you have connected the Hybrid Module to your controller and downloaded the Hybrid plugin, a firmware update is automatically triggered to bring new features (new devices, new functionalities) and security patches.

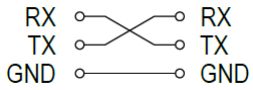
The Module firmware version number displays in the **Configuration** section in the lower left corner of the screen (Configuration, page 30). If you are connected via VPN, this information is not visible.

Getting Started

You need a Wiser for KNX or spaceLYnk controller to operate the Hybrid Module.

Before you install the Hybrid plugin into the Wiser for KNX or spaceLYnk controller, make sure your Hybrid Module is:

- POWERED: The device is powered by 24 V DC.
- PROPERLY WIRED TO THE CONTROLLER: You have to cross the RX and TX wires, as shown in the diagram.



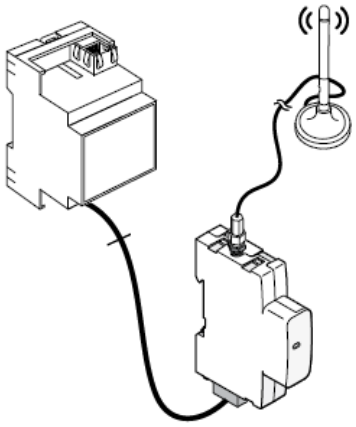
  You can find detailed information on the wiring in the installation instructions of the Hybrid Module.

You need a standard web browser to work with the configuration software of the logic controllers, plugin and to set up the Hybrid Module.

Recommended browsers:

- Chrome version 118.0.5993.89 (Official Build) 64-bit
- Firefox version 118.0.2 (64-bit)
- Safari version 15.6.1

Make sure your logic controller has a firmware version of at least 2.8.3 (or higher).



New Wiser for KNX/spaceLYnk Installation

In your web browser:

1. Type the default IP address 192.168.0.10 in the address bar of your web browser.
2. Click **Enter**.
3. Enter the default login details and click **Enter**.
   - username: **admin**
   - password: **admin**

You will get prompted to change your password. Type it and click **Save**.

Your new password has to contain at least one:

- uppercase letter

- lowercase letter
- digit
- special character

Minimum length is 8 characters.

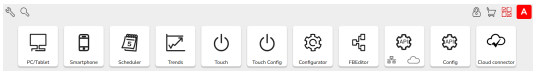
Existing Wiser for KNX/spaceLYnk Installation

In your web browser:

1. Type the IP address you have defined for your controller in the address bar of the web browser.
2. Click **Enter**.
3. Enter your existing login details and click **Enter**.
   It is mandatory to access with the administration account.
   - username: **admin**
   - password: ...

Launching the Start Page

The following procedure is the same for both new and existing installations. After successful login, the next step gets you to the start page.



NOTE: It is recommended that you have the latest firmware in your controller.

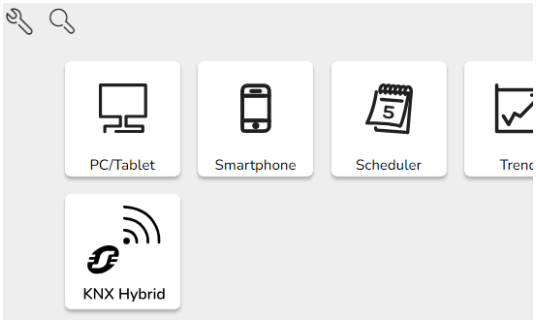
Install the Hybrid plugin to configure your wireless devices:

1. Click  in the upper right corner.
2. A list of available applications that you can install will open.
3. Find the Hybrid plugin and click the download icon at the end of the application line.
4. Click **Yes** to install the application.

You can also install the plugin from a file on your computer (for example, if your controller does not have an Internet connection).

The Hybrid plugin will appear in your list of installed items.

When you return to the start page, you will see that the Hybrid plugin icon appears among your available applications as KNX Hybrid:



Devices

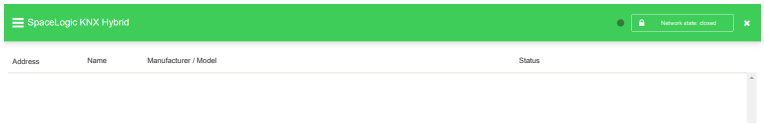
Preparing Your Module for Pairing

After you install the Hybrid plugin on the controller, you can pair your wireless devices to your controller. You can change parameters and group objects for each device.

1. Open your browser and connect to your controller.
2. Click the KNX Hybrid icon on the start page. This will take you to the plugin start page, which displays a list of the wireless devices.

KNX Hybrid icon on the start page

If you have not added any wireless devices yet, the list is empty.



Plugin home page

Make sure the Hybrid Module functionality indicator in the upper right of the home page is green ( ). If the indicator is red, or if the **Network state** button next to it is missing, the Hybrid Module is not working properly and you need to reboot your controller.

> **NOTE:** If you are accessing the module remotely via VPN, the indicator flashes red, and the **Network state** button is missing, even if the module is working. You cannot open and close the network remotely.

If there is no communication and the installation does not work, follow these steps:

Reboot your controller:

1. Close the Hybrid application with the cross at the top right.
2. On the Start page, click on the **Configurator** → **System** → **System** tab.
3. Select **Reboot** from the menu.

After you reboot your controller:

1. Return to the start page.
2. Prepare your wireless device that you want to pair.

> **NOTE:** If a reboot does not help, try to power your device off and then on.

Pairing the Device

If your wireless device is battery powered, make sure you have a battery inside and remove the plastic film from the battery. If the device is mains powered, make sure it is properly connected to the mains.

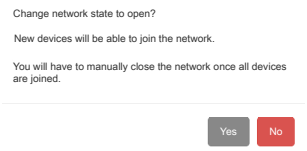
Find the Reset/Setup button on the back of your device. With this button, you can pair your device and reset it.

NOTE: If your ZigBee device does not have this button, follow the instructions in the device user manual.

You can also commission the devices using the Schneider Electric eConfigure software tool (see more here https://www.se.com/ww/en/download/document/eConfigure_ETS5_Lite175/).

You have to open your network to add the ZigBee wireless devices.

1. Click the **Network state** button at the top right. The change network state dialog appears:

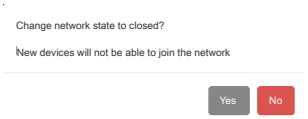


2. Click **Yes** to change the network status to **Open**.
3. Set your device to pairing mode (see Device Pairing Mode, page 14).

   NOTE:

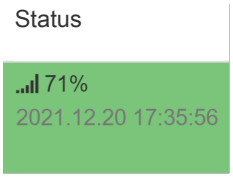
   Your commissioned wireless device flashes orange after a triple-click. If the network is open, your device flashes green for a few seconds, and a new device line appears in the plugin. Your device is paired.
   Address: Short and long address of the device
   Manufacturer/Model: Device identification
   Status: The time last telegram was sent

   IMPORTANT: It is recommended to check pairing procedure of your ZigBee device in the user guide of the device. The pairing process may vary between the devices.
4. If you are not adding any more devices, close the network. Click the **Network state** button at the top right again and click **Yes** to change the network status to **Closed**.



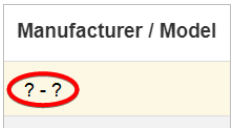
NOTE: The network closes automatically 10 minutes after opening. You can extend this interval. See more in Configuration, page 30.

NOTE: The green background of the status column means that data is being sent or updated.



Incomplete commissioning of battery devices

If you see question marks in the **Manufacturer/Model** column in the device line after commissioning, the device is not correctly commissioned, even if it looks like it.



Such a device would not work properly. If this happens, delete the device from the device list and configure it again. It is possible that you will need to commission your device repeatedly.

Do not forget to wake your device before deleting.

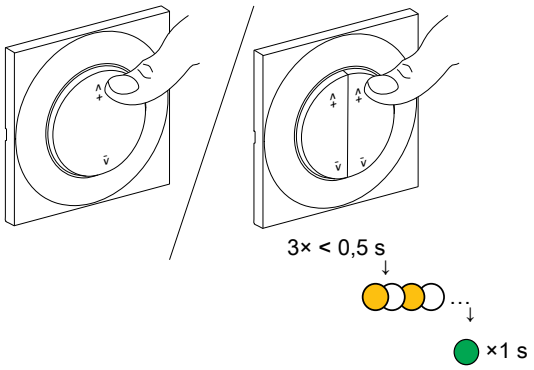
Device Pairing Mode

To pair the device with the controller, you need to put it in pairing mode.

Press the Reset/Setup button three times briefly until the LED on the front starts blinking orange.

The device is in pairing mode.

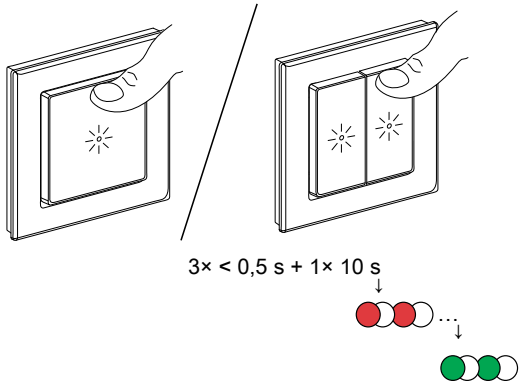
NOTE: If your device is flashing green, it is already paired. If you want to pair your device again or to another device, reset it first and repeat the pairing process.



NOTE: For more information on how to pair your wireless device, please refer to its user guide.

Resetting the Device

For most Wiser wireless devices, to reset them, you have to short-press the button three times and then long-press the button once for 10 s. The front LED starts flashing red slowly.



NOTE: For more information on how to reset your wireless device, please refer to its user guide.

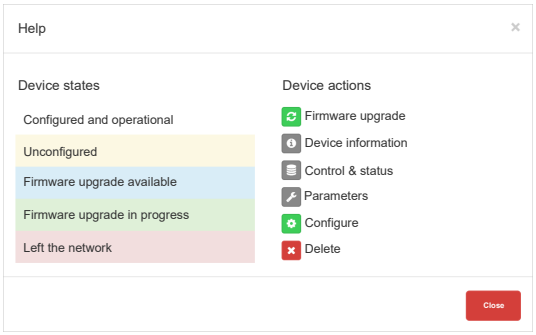
Device Actions

There are five icons at the end of each device line. When you click these icons, you can do the following:

- Upgrade device firmware
- View device information
- Set device control and status
- Set device parameters
- Delete device

Help

If you click  in the upper right corner of the screen above the list of devices, you will see a **Help** section where you can find a description of each device action icon and device status background color.



Device Firmware Upgrade

By default, automatic device firmware update is disabled. With the **Firmware upgrade** icon you can manually upgrade the device firmware.

 New firmware is available.

 There is no new firmware available for the device.

NOTE: After the device is commissioned, the firmware upgrade button is disabled for some time, even if a firmware upgrade is available. It usually takes a few minutes for the upgrade button to become active.

If new firmware is available for the device (the device is colored blue), you can start the firmware upgrade:

Click  > **Yes** > If you want to upgrade a battery device, interact with it to wake it up > click **Continue**.

The device will turn green (**Firmware upgrade in progress**) and then white (**Configured and operational**). Firmware upgrade is completed.

NOTE: You can only manually upgrade one device at a time.

If you do not want to upgrade your device firmware manually, enable automatic firmware upgrade of your device as follows:

Click > check **Enable automatic firmware upgrade**.

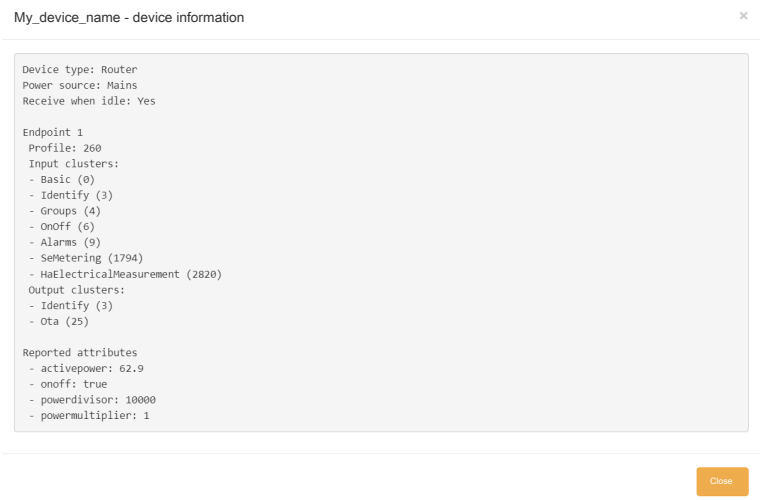
Your device firmware will be automatically upgraded whenever a firmware update is available. You can find information about the firmware version of your device if you click at the end of the device line (Device Information, page 16).

NOTE: The **Network state** button for opening and closing the network is disabled during the firmware upgrade.

Device Information

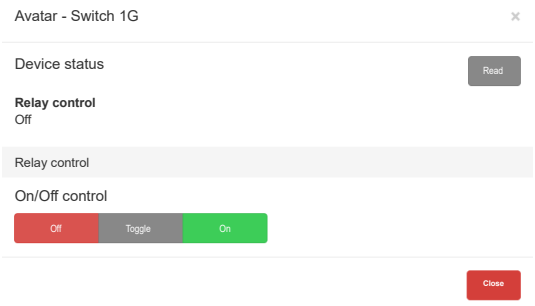
When you click the **Device information** icon , you will see a list of information about your device:

- Manufacturer
- Device type
- Firmware version
- Power source
- Status for receiving telegrams.
- Input and output ZigBee clusters.
- Reported attributes of the device.



Device Control and Status

With this setting , you can control the wireless devices and check their status. You can identify the device, test its functionality (turn off, turn on) or read the current status/consumption.



For example, if you have commissioned several devices of the same model, and you need to distinguish which one is which, you can turn them on/off with the **Device control and status** setting.

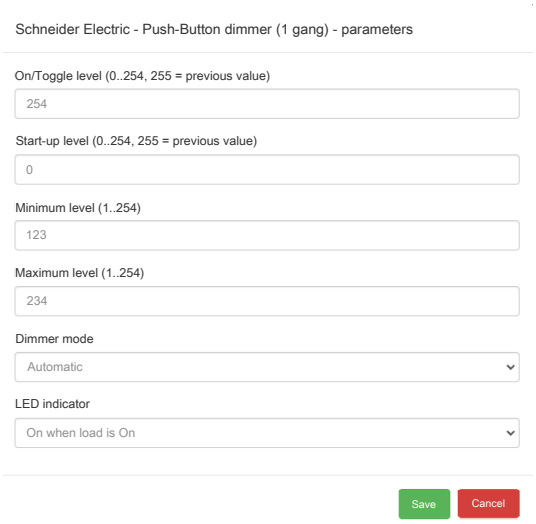
You can use **Device control and status** for troubleshooting if you have a problem to control your device from **Touch** visualization. Turn your device on/off and check if it works.

> **NOTE:** This feature is not available for battery-powered devices. Battery-powered devices are usually idle.

Setting Device Parameters

With this setting, you can change the device parameters. The function is disabled for devices that do not have configurable parameters.

When you click  , a device dialog box will open. There, you can change required parameters.



List of Parameters

Device	Parameter	Parameter Description
Avatar dimmers	Indicator light level	LED light intensity (%)
	Indicator color	The color of the LED light (white/blue)
	LED indicator	LED lighting period (On when load is On/ Off, Always On/Off)
	Minimum level (1...254)	The minimum dimming level setting
	Maximum level (1...254)	The maximum dimming level setting
	Dimmer mode	Dimming mode setting – Automatic, RC (trailing edge), RL (leading edge), RL-LED.
Merten dimmer	Switch action	Switch function: • Light, Light (inverse*) • Dimmer, Dimmer (inverse*) • Standard shutter**, Standard shutter** (inverse*) • Schneider shutter**, Schneider shutter** (inverse*) • Scene – two scene numbers (one up, the other down)
	LED indicator	LED lighting period (On when load is On/ Off, Always On/Off).
	On/Toggle level (1...254, 255 = previous value)	Dimmer lighting level after turning on the dimmer.
	Start-up level (0...254, 255 = previous value)	Starting lighting level after power outage.
	Minimum level (1...254)	Limitation of the bulb function from below - minimum light value.
	Maximum level (1...254)	Limitation of the bulb function from above - maximum light value.
	Dimmer mode	Dimming mode setting – Automatic, RC (trailing edge), RL (leading edge), RL-LED.
Motion sensor dimmer	Device type switch/dimmer	Device type setting – dimmer or switch.
	Occupancy operation mode	Dimmer on and off setting (Manual mode; Auto; Auto on/off, Manual on/off)
	Detection timeout (seconds)	Detection duration.
	Ambience light threshold (lux)	If light intensity ≥ ambience light threshold, do not switch on.
Rotary dimmer	On/Toggle level (1...254, 255 = previous value)	Dimmer lighting level after turning on the dimmer.
	Start-up level (0...254, 255 = previous value)	Starting lighting level after power outage.
	Minimum level (1...254)	Limitation of the bulb function from below - minimum light value.
	Maximum level (1...254)	Limitation of the bulb function from above - maximum light value.
	Dimmer mode	Dimming mode setting – Automatic, RC (trailing edge), RL (leading edge), RL-LED.
Free locate switch	Indicator light level	LED light intensity (%).
	Indicator color	The color of the LED light (white/blue).
	Key 1 – 4	Button function setting – No configuration/ Toggle dimmer/ Scene.
	Switch mode	Setting the number of rockers.
	Switch action	Rocker function: • Light, Light (inverse*)

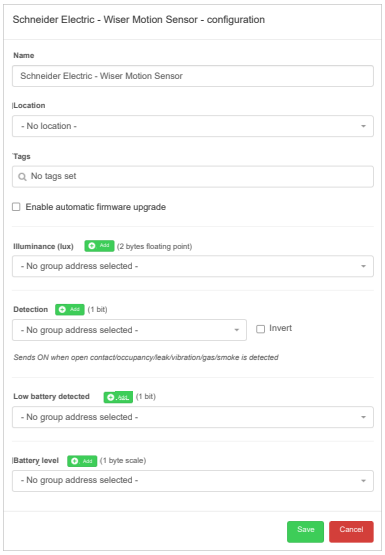
Device	Parameter	Parameter Description
		• Dimmer, Dimmer (inverse*) • Standard shutter**, Standard shutter** (inverse*) • Schneider shutter**, Schneider shutter** (inverse*) • Scene – two scene numbers (one up, the other down)
Motion sensor	Sensitivity level	Motion detection sensitivity setting – Default, Low, Medium, High
	Detection timeout (seconds)	Detection duration.
Shutter	Switch action	Switch function: • Light, Light (inverse*) • Dimmer, Dimmer (inverse*) • Standard shutter**, Standard shutter** (inverse*) • Schneider shutter**, Schneider shutter** (inverse*) • Scene – two scene numbers (one up, the other down)
	Indicator light level	LED light intensity (%).
	Indicator color	The color of the LED light (white/blue).
	LED indicator	LED lighting period (On when load is On/ Off, Always On/Off).
	On/Off transition time	Total movement time of the shutter until fully closed/opened (tenth of a second).
	Motor type channel 1/2	Setting the type of motor - asynchronous or pulse motor.
	Height: time from fully closed to fully open (seconds)	Time from fully closed to fully open (seconds)
	Height: time from fully open to fully closed (seconds)	Time from fully open to fully closed (seconds)
	Tilt: time from fully open to fully closed (seconds, 0 = tilt disabled)	Time from fully open to fully closed (seconds, 0 = tilt disabled)
	Scene	Number of scene (button press = trigger).
Switch	Indicator light level	LED light intensity (%).
	Indicator color	The color of the LED light (white/blue).
	LED indicator	LED lighting period (On when load is On/ Off, Always On/Off).
	Switch action	Switch function: • Light, Light (inverse*) • Dimmer, Dimmer (inverse*) • Standard shutter**, Standard shutter** (inverse*) • Schneider shutter**, Schneider shutter** (inverse*) • Scene – two scene numbers (one up, the other down)
Motion sensor switch	Occupancy operation mode	Light on and off setting (Manual mode; Auto; Auto on/off, Manual on/off).
	Detection timeout (seconds)	Detection duration.
	Ambience light threshold (lux)	If light intensity ≥ ambience light threshold, do not switch on.

Inverse* = Reverse order of switches (up/down is down/up) or dimming direction.

Schneider shutter** = Schneider shutter data points are supported.

Device Configuration

If you want to configure your ZigBee device, click the **Settings** icon on the right of the device line. Name your device, specify its location*, and choose the group objects.



First, map ZigBee attributes to KNX group objects. Then, you will be able to create widgets in Touch visualization and control your ZigBee devices.

You can use the already created group object and control ZigBee and KNX devices together.

Here is how to create new objects: Create New Object, page 24.

* If you want to organize ZigBee devices into rooms or areas, use a location parameter. You can create a location as follows:

Type the location name into the **Configuration** dialog window and press **Enter**. You can also select the device location from a drop-down **Location** menu.

> **NOTE:** Battery-powered devices: If you map KNX objects to ZigBee attributes **Low battery detected** and **Battery level**, you can use them in Touch visualization. The device widget will show the battery level and you can receive battery status notifications.

Dimmers

Device	Object	Object Description
Dimmer	On/Off control (1 bit)	Turning on/off.
	Start/stop dimming (4 bits)	Button press dims 100 percent up or down. Releasing the button stops dimming.
	Up/stop (1 bit; true = up, false = stop)	Button press = dimming up, button release = stop.
	Down/stop (1 bit; true = down, false = stop)	Button press = dimming up, button release = stop.
	Set level directly (1 byte scale)	Set dimming level (%).
	On/Off status (1 bit)	Feedback for on/off.
	Level status (1 byte scale)	Feedback for dimming level.
	Steps per second (supported only on some devices)	Number of steps per second after pressing the button.

Device	Object	Object Description
	Transition time (seconds) – supported only on some devices	The time during which it is to dim to the set intensity.
	Step size (0 = default) – supported only on some devices	Setting the dimming step range
Motion sensor dimmer	Illuminance (lux)	Light intensity.
	Occupancy (1 bit)	1-bit value for presence detection.
Dimmer button	On/Off/Toggle (1 bit)	Button function – on/off/toggle.
	Set level or step current value (1 byte unsigned)	Dimming by a set step.
	Step size (0 = default)	Setting the dimming step range.

Free Locate Switch

Device	Object	Object Description
Free locate switch	Battery level (1 byte scale)	Device battery level.
	On/Off/Toggle (1 bit)	On/Off/Toggle control.
	Start/stop dimming (4 bits)	Button press dims 100 percent up or down. Releasing the button stops dimming.
	Set level or step current value (1 byte unsigned)	Dimming by a set step.
	Step size (0 = default)	Setting the dimming step range.
	Scene (1 byte unsigned)	Sends number of the scene.
Merten	Up/Down/Stop (4 bits)	Button press dims 100 percent up or down. Releasing the button stops dimming.
	Up/Down (1 bit)	1 = dimming up, 0 = dimming down
	Stop (1 bit)	0 = stop dimming

Sockets

Device	Object	Object Description
Sockets	On/Off control (1 bit)	Turn on/off.
	On/Off status (1 bit)	Feedback for on/off.
	Active power (4 bytes floating point)	Current power consumption.
	RMS voltage (4 bytes floating point)	Value of electric voltage.
	RMS current (4 bytes floating point)	Electric current.
	Energy delivered (4 bytes floating point)	Cumulative energy consumption. The value is reset to zero during commissioning.

Switches

Device	Object	Object Description
Switches	On/Off control (1 bit)	Turn on/off.
	On/Off status (1 bit)	Feedback for on/off.
Merten/Motion sensor switch	On/Off/Toggle (Push-button) – 1 bit	On/Off/Toggle control.

Device	Object	Object Description
Motion sensor switch	Illuminance (lux) – 2 bytes floating point	Light intensity.
	Occupancy – 1 bit	1-bit value for presence detection.

Shutters

Device	Object	Object Description
Shutter	On/Off control (1 bit)	Turning on/off.
	On/Off status (1 bit)	Feedback for on/off.
	Level status (1 byte scale)	Feedback for position level.
Puck shutter	Height control (1 byte scale)	The height of the shutter (%) control.
	Tilt control (1 byte scale)	The tilt of the slats control.
	Up/Open (1 bit; true = up/open, false = stop)	Shutter goes up/opens.
	Down/Close (1 bit; true = down/close, false = stop)	Shutter goes down/closes.
	Up/Down/Stop (4 bits)	Move up/down 100% with two buttons. Pressing the button again stops the movement.
	Height status (1 byte scale)	Status feedback for height of the shutter.
	Tilt status (1 byte scale)	Status feedback for tilt of the slats.
Merten/Wiser shutter	Up/Down/Stop (push-button) – 4 bits	Move up/down 100% with two buttons. Pressing the button again stops the movement.
	Up/Down (push-button) – 1 bit	Up/down control.
	Stop (push-button) – 1 bit	Stop the movement.

Sensors

Device	Object	Object Description
Window/door sensor	Battery level (1 byte scale)	Device battery level
	Low battery detected (1 bit)	Device battery low detection
	Detection (invert) – 1 bit	Detection (sound signal) – sends ON when open contact/occupancy/leak/vibration/gas/ smoke is detected.

Device	Object	Object Description
Water leakage sensor	Battery level (1 byte scale)	Device battery level.
	Low battery detected (1 bit)	Device battery low detection.
	Detection (invert) – 1 bit	Detection (sound signal) – sends ON when open contact/occupancy/leak/vibration/gas/ smoke is detected.

Device	Object	Object Description
Temperature/Humidity sensor	Battery level (1 byte scale)	Device battery level.
	Temperature (2 bytes floating point)	Temperature detection (°C).
	Humidity (1 byte scale)	Humidity detection (%).

Device	Object	Object Description
Motion sensor	Battery level (1 byte scale)	Device battery level.

Device	Object	Object Description
	Low battery detected (1 bit)	Device battery low detection.
	Detection (invert) – 1 bit	Detection (sound signal) – sends ON when open contact/occupancy/leak/vibration/gas/ smoke is detected.
	Illuminance (lux) – 2 bytes floating point)	Light intensity.

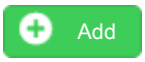
Device	Smoke Alarm 230V	Object Description
Smoke alarm 230 V	Battery level (1 byte scale)	Device battery level.
	Low battery detected (1 bit)	Device battery low detection.
	Battery defect (1 bit)	Defective battery detection.
	Temperature (2 bytes floating point)	Temperature detection (°C).
	Detection (invert) – 1 bit	Detection (sound signal) – sends ON when open contact/occupancy/leak/vibration/gas/ smoke is detected.
	Heat Alarm (1 bit)	Elevated temperature detection.
	Fault warning (1 bit)	Error detection.
	AC mains (1 bit)	230 V connection indicator.
	Test mode (local) – 1 bit	Device test mode (long press) that triggers an alarm (detection is not interrupted).
	Remote Alarm (1 bit)	Multiple sensors linked – one of them detects smoke, the others report a remote alarm.
	Hush mode (1 bit)	Temporarily interrupts the alarm by pressing the button.

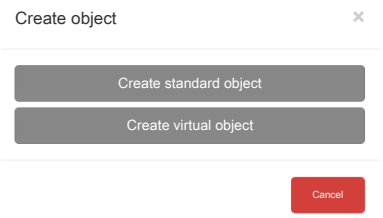
Thermostats

Device	Object	Object Description
Thermostat	Battery level (1 byte scale)	Device battery level.
	Temperature (2 bytes floating point)	Temperature detection (°C).
	Humidity (1 byte scale)	Humidity detection (%).
	Setpoint (10..30°C) – 2 bytes floating point	Required temperature.

Create New Object

To create a new object:

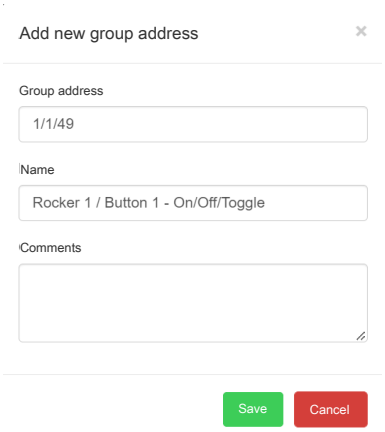
1. Click  at the end of the device line.
2. Click  above the object drop-down menu.
   A dialog will appear in which you can select the type of object.



Types of objects

- **Standard object** – object value changes are sent to the KNX bus.
- **Virtual object** – object value changes are never sent to the KNX bus. (Virtual objects are usually used for visualization or scripting.)

3. In the **Create object** dialog, click **Create standard/virtual object**.
4. Fill in the **Add new group address** form > click **Save**.



The new object appears in the object field of the **Configuration** form. Click **Save** to save the changes.

Specific Configuration of the ZigBee Devices

Before installing the device, check this table for specific configuration requirements. You can find the list of supported devices here: Supported Devices, page 34.

<table>
<tr><th>Device</th><th>Issue</th><th>Solution</th></tr>
<tr><td>Avatar Free locate switch</td><td>You want to assign different functions to the avatar free locate switch keys.</td><td>You can only assign a scene function to the keys of the avatar free locate switch. You assign the desired functions to the scenes.

The following example describes how to turn lights off and on with keys 1 and 2 and control shutter with keys 3 and 4.
1. Go to your device Parameters in the Hybrid plugin > assign a scene function and a scene number to each key in the Parameters form..
<table><tr><th>Key Nr.</th><th>Function</th><th>Scene Nr.</th></tr><tr><td>1</td><td>Scene</td><td>0</td></tr><tr><td>2</td><td>Scene</td><td>1</td></tr><tr><td>3</td><td>Scene</td><td>2</td></tr><tr><td>4</td><td>Scene</td><td>3</td></tr></table>2. Use the following script to link the key functions:
<pre>SC = event.getvalue()
 Light1 = '0/0/1'
 Light1_St = '0/0/2'
 Light2 = '0/0/3'
 Light2_St = '0/0/4'
 C1_Stop4B = '1/1/6'

L1 =grp.getvalue(Light1_St)
 L2 =grp.getvalue(Light2_St)
 C1stop=grp.getvalue(C1_Stop4B)

if SC==0 then -- FLS button 1 toggle Light 1
 grp.write(Light1, not L1)

 elseif SC==1 then -- FLS button 2 toggle Light 2
 grp.write(Light2, not L2)

elseif SC==2 then -- FLS button 3 open or stop curtain 1
 if C1stop ~= 0 then
   grp.write(C1_Stop4B,0)
   else
   grp.write(C1_Stop4B,6)
 end

 elseif SC==3 then -- FLS button 4 open or stop curtain 1
 if C1stop ~= 0 then
   grp.write(C1_Stop4B,0)
   else
   grp.write(C1_Stop4B,13)
 end

 end</pre></td></tr>
<tr><td>Avatar Blind</td><td>You want to move your curtain to a precise (absolute) position.</td><td>For this device, absolute positioning only fully closes or fully opens.</td></tr>
<tr><td>Avatar Blind</td><td>You want to open/close slats.</td><td>The product supports only the control of curtains. Map Up/Down objects to the Left/Right objects depending on your installation.</td></tr>
<tr><td>Dimmers and switches</td><td>Order of 2-gang keys for dimmers and switches.</td><td>For 2-gang dimmers or switches (Avatar range excluded), the right keys are gang/output #1, and the left keys are gang/output #2.</td></tr>
<tr><td>Dimmers</td><td>You want to control the ZigBee dimmer via relative dimming function.</td><td>Link the 03.007 dim/blinds step object to 4 bits Start/stop dimming Hybrid object of the free locate switch.
NOTE: For the Start/stop dimming object, the dimming speed is irrelevant to the selected value. For example, the object value Up 1% will dim up as quickly as theUp 100% one.</td></tr>
<tr><td>Shutters/Blinds</td><td>The shutters/blinds move in reverse. Instead of down, they go up and vice versa.</td><td>1. Go to your device Parameters in the Hybrid plugin > select inverse shutter in the Parameters form.
2. Cross the wires leading to the shutter motor.
3. Swap the drive up and down time in the Parameters form.</td></tr>
</table>

Device	Issue	Solution

Shutters	You want to control the ZigBee shutter from the app using the arrow buttons.	Use the following script to convert two objects into one (or one object into two): 01.008 **Up/Down** KNX object → 1 bit **Up/Stop** + 1 bit **Down/Stop** Hybrid objects.
		
		`updown = grp.getvalue('43/4/11') -- Up/Down Open/Close`
		`if updown then`
		`  grp.write('43/4/4', 1) -- Down/Close`
		`else`
		`  grp.write('43/4/3', 1) -- Up/Open`
		`end`

Motion sensor – Dimmer, Switch, Ceiling	The **Illuminance** object is sent every 10 seconds and overloads CPU.	Unmap **Illuminance** objects that are not necessary. Go to Configuration of your device > find 2 bytes **Illuminance** object field > unmap the object (the object field has to be empty) > click **Save**.

Delete ZigBee Devices

The last red icon in the device line is for removing ZigBee devices from the network.

If you want to delete your device, click  at the end of the device line > click **Yes**.

The device will be removed from the network.

Reset the device physically so that it can join the network again.

You have to reset battery-powered devices manually to fully remove them from the network.

Extend Device Functionality

Mains-powered ZigBee devices with manual control (push-buttons, rotary knobs) have extended functionality of decoupling the front and back of the device. The front (push-buttons) part of the device can control a completely different device than the one it belongs to.

A blue note in the device Configuration dialog informs you of the extension possibility.

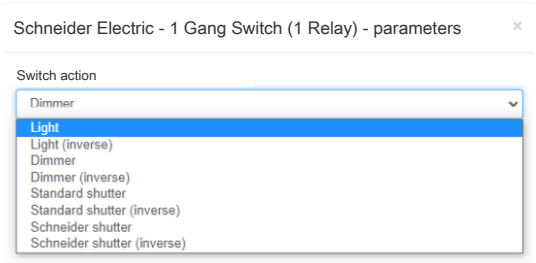
> Push-Button functionality can be changed via device parameters.

Devices without a push-button interface, like the Wiser micro-modules, do not support this extended functionality.

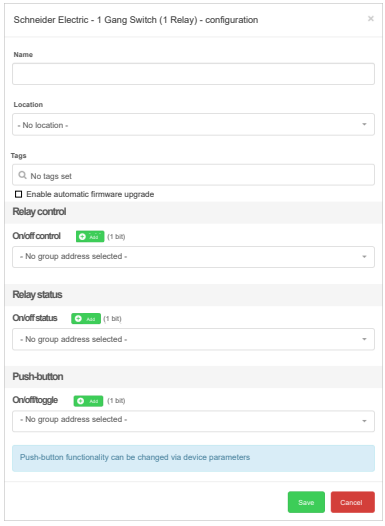
To use this functionality, do the following:

1. Go to Hybrid plugin > select a device that supports this functionality > click  to open its **Parameters** setting.

2. In device **Parameters** setting, select from a drop-down menu which device type you want to control by switch action.



3. Click **Save**.
4. Click  to open the **Configuration** dialog > configure your device. There are three sections in the **Configuration** dialog:
   - Name and device location.
   - Configuration of the back part of your device (device control, device status).
   - Push-button configuration (if your device supports it) at the front panel (buttons, knobs).



5. In the **Push-button** section, based on the setting you did in the **Parameters** section, you can see the functionality assigned to the front part of the device. Assign a group address to each functionality.

Touch Visualization

After commissioning the ZigBee device and mapping it into KNX objects, you can use those KNX objects for creating widgets in Touch visualization.

Click the cross at the top right to close the Hybrid application to be able to start Touch configuration.

On the Start page, click 

. You get to the visualization configurator.

For more information check the controller user guide.

Groups

ZigBee groups are suitable for central functions or for bulk operations. For example, you can turn on/off all dimmers or open/close all blinds by sending a single telegram. You can control several devices at the same time and not overload the ZigBee network.

ZigBee groups can be composed of devices with the same functionality. Each device in the group remembers that it is part of the group and will only receive telegrams for its group.

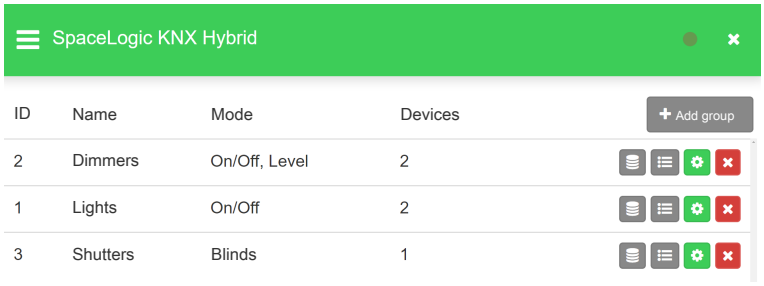
Only one group telegram is always sent to all ZigBee devices in the network. All devices will read the telegram. Only the devices that belong to the group will receive the telegram and perform the required operation.

To create a group, follow these steps:

1. Click > select **Groups**.
2. Click **Add group** and fill in the form (group ID, name, mode).
3. Click **Save and configure**and fill in the form (name, location, assign group object to the control command).
4. Click **Save and add devices** > select the devices you want to add to your group.
5. Click **Add to group** and **Close**.

Your new group of devices appears in the list of groups.

You can further modify each group later, change its parameters, or delete it.



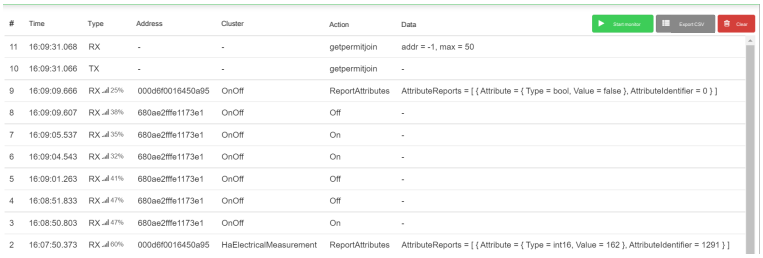
Monitor

Monitoring is an information and diagnostic tool that allows you to get an overview of the functionality of the ZigBee network. The **Monitor** function monitors the activity of the device in the network and the values generated/received by the devices.

To run the monitoring, do the following:

1. Click  > select **Monitor**.
2. Click the **Start monitor** button to start monitoring.

Messages start to appear on the screen in chronological order, containing the following information about the devices:



#	Time	Type	Address	Cluster	Action	Data
11	16:09:31.068	RX	-	-	getpermitjoin	addr = -1, max = 50
10	16:09:31.066	TX	-	-	getpermitjoin	-
9	16:09:09.666	RX 25%	000d6f0016450a95	OnOff	ReportAttributes	AttributeReports = [{ Attribute = { Type = bool, Value = false }, AttributeIdentifier = 0 }]
8	16:09:09.607	RX 38%	680ae2fffe1173e1	OnOff	Off	-
7	16:09:05.537	RX 35%	680ae2fffe1173e1	OnOff	On	-
6	16:09:04.543	RX 32%	680ae2fffe1173e1	OnOff	On	-
5	16:09:01.263	RX 41%	680ae2fffe1173e1	OnOff	Off	-
4	16:08:51.833	RX 47%	680ae2fffe1173e1	OnOff	Off	-
3	16:08:50.803	RX 47%	680ae2fffe1173e1	OnOff	On	-
2	16:07:50.373	RX 60%	000d6f0016450a95	HaElectricalMeasurement	ReportAttributes	AttributeReports = [{ Attribute = { Type = int16, Value = 162 }, AttributeIdentifier = 1291 }]

Number: Message serial number.

Time: The time when the message was received by the hybrid module.

Type: Data sent/received (S/R) and signal strength.

Address: MAC address of the device.

Cluster: Type of the ZigBee clusters.

Action: Action taken (related to the cluster).

Data: Data sent/received.

If you want to stop monitoring, click **Stop monitor**.

You can export monitoring values as a CSV file to local storage: click **Export CSV**.

Configuration

Network configuration is the process of setting your network characteristics. Configure the network before pairing the wireless devices:

1. Click  > select **Configuration**.
2. Configure your network as follows:
   - **Channels**: The ZigBee standard defines 15 channels, all within the 2.4 GHz radio band. ZigBee channels are numbered 11-25, but they overlap many of the same frequencies as Wi-Fi channels 1-11.
   - **PAN ID**: Each ZigBee network is defined with a unique PAN (personal area network) identifier (ID), which is common among all devices of the same network. ZigBee devices are either preconfigured with a PAN ID to join, or they can discover nearby networks and select a PAN ID to join.

     NOTE: Change the PAN number each time you change the Hybrid Module. If multiple ZigBee networks are operating within range of each other, each should have unique PAN IDs.
   - **Network key**: The network encryption key size is 128 bits which is 16 hexadecimal values between 0 x 00 and 0 x FF. The payload of ZigBee messages is encrypted by the network key. The network key is exchanged with a device on pairing.
   - **Automatic network close time (minutes)**: The amount of minutes it takes the network (after opening) to automatically close itself.
   - **Debug logging**: Enable/disable ZigBee debug logging. You can see the debug logs in Logs, page 33.
3. Click **Save**.

Add Install Code

The **Add install code** function enables encrypted commissioning of your devices. It is the secure way how to commission your devices. You do not share the network information, for example, the network key.

You need to find out the following information from the QR code of your device:

- **Address** (EUI-64): MAC address
- **Install code**

To enable encrypted commissioning of your device, follow these steps:

1. Click  > select **Add install code**.
2. Enter the MAC address and install code of your device > click **Add**.

   NOTE: If your controller disconnects or reboots while adding the installation code and MAC address, you have to start over.

Now commission your device as described in Pairing the Device, page 12.

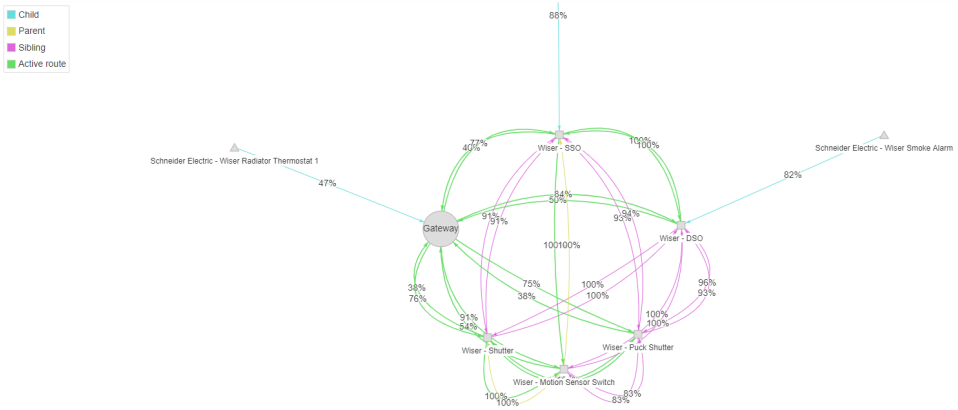
Network Map

The Network map function graphically displays the mesh network topology with color-coded links between individual devices. Each link means communication between the devices (sending telegram).

You can filter links by clicking on the menu on the top left:

- **Child**: The device that reaches controller through another device (through parent device).
- **Parent**: The root device that other devices connect to as a children.
- **Sibling**: A device that the other device can “hear”, but is not connected to it.

  Active route: Active connection.



The percentage means the strength of the mesh network signal (this data comes from the router).

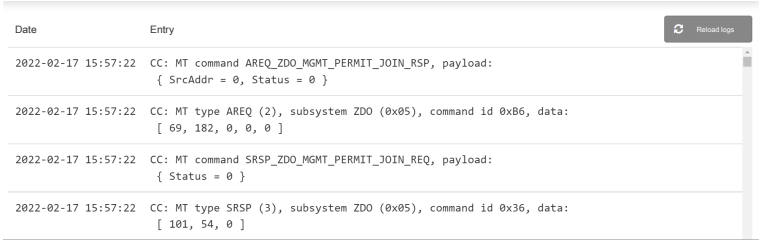
Make sure all devices have enough signal to be controllable. Signal strength is also displayed during monitoring – see Monitor, page 29.

Logs

The network log is a direct access data set that stores messages and commands, communications about network functions.

You can gather every packet or a set of packets for further analysis, traffic monitoring, or troubleshooting.

To see the logs, click ☰ > **Logs**:



Several kinds of information can appear in your network log:

- Job time, step time, and data entered by user-written routines.
- Operating data.
- Descriptions of unusual events.

You can reload logs (click **Reload logs**) and export them in a *.txt file to your local storage (click **Export logs**).

Supported Devices

This is a table of devices that have been tested for compatibility. Full compatibility cannot be guaranteed for devices that have not been tested.

Schneider Electric does not provide firmware upgrade for third-party devices.

Find out if your device is supported (Ctrl + F).

IMPORTANT: Before installing the device, check Specific Configuration of the ZigBee Devices, page 25 table for specific configuration requirements.

Actuators

Range	Commercial ref.	Description
Avatar ON	E8331SRYZB_xx	Switch, AvatarOn, Wiser, 1 gang, 1000W
Avatar ON	E8332SRYZB_xx	Switch, AvatarOn, Wiser, 2 gang, 1000W
Avatar ON	E8333SRYZB_xx	Switch, AvatarOn, Wiser, 3 gang, 1000W
Avatar ON	E8331SCN200ZB_xx	Wiser AvatarOn 1G Curtain SW,200W
Avatar ON	E8331DST350ZB_xx	Wiser AvatarOn 1G Dimmer,350W
Avatar ON	E8332SCN300ZB_xx	Wiser AvatarOn 2G Curtain SW,300W
Avatar ON	E8332DST400ZB_xx	Wiser AvatarOn 2G Dimmer,400W
Avatar ON T	E8631SC200ZB_xx_xx	Wiser AvatarOn T 1G Curtain SW,200W
Avatar ON T	E8631DS300ZB_xx_xx	Wiser AvatarOn T 1G Dimmer,300W
Avatar ON T	E8631SR800ZB_xx_xx	Wiser AvatarOn T 1G Switch,800W
Avatar ON T	E8632SC300ZB_xx_xx	Wiser AvatarOn T 2G Curtain SW,300W
Avatar ON T	E8632DS350ZB_xx_xx	Wiser AvatarOn T 2G Dimmer,350W
Avatar ON T	E8632SR800ZB_xx_xx	Wiser AvatarOn T 2G Switch,800W
Avatar ON T	E8633SR800ZB_xx_xx	Wiser AvatarOn T 3G Switch,800W
Exact	WDE00xxxx	Wiser Exxact Push Button relay switch
Exact	WDE00xxxx	Wiser Exxact PushButton LED Dimmer
Exact	WDE00xxxx	Wiser Exxact Rotary LED Dimmer
Exact	WDE00xxxx	Wiser Shutter control switch
Fuga	545Dxxxx	Fuga Wiser PB dimmer 1M
Fuga	545Dxxxx	Fuga Wiser PB double relay 1M
Odace	S520567	Connectable Blind Control Switch
Odace	S530567	Connectable Blind Control Switch
Odace	S520513	Connectable Universal Rotary Dimmer
Odace	S530513	Connectable Universal Rotary Dimmer
Odace	S540513	Connectable Universal Rotary Dimmer
Odace	S540567	Wiser blinds & shutters control switch
Odace	S520530	Wiser relay switch 10 A
Odace	S530530	Wiser relay switch 10 A
Odace	S540530	Wiser relay switch 10 A
Odace	S520522	Wiser universal push- button dimmer LED
Odace	S530522	Wiser universal push- button dimmer LED
Odace	S540522	Wiser universal push- button dimmer LED

Range	Commercial ref.	Description
System D	MEG5180-0000 + MEG5116-6000	1G 1-10v Dimmer + 1G Wiser Application Module
System D	MTN5180-0000 + MTN5116-6000	1G 1-10v Dimmer + 1G Wiser Application Module
System D	MEG5185-0000 + MEG5126-6000	1G Dali Dimmer + 1G Wiser Application Module
System D	MEG5151-0000 + MEG5116-6000	1G Electronic Switch + 1G Wiser Application Module
System D	MTN5151-0000 + MTN5116-6000	1G Electronic Switch + 1G Wiser Application Module
System D	MEG5161-0000 + MEG5116-6000	1G Relay Switch + 1G Wiser Application Module
System D	MTN5161-0000 + MTN5116-6000	1G Relay Switch + 1G Wiser Application Module
System D	MEG5165-0000 + MEG5126-6000	1G Shutter + 1G Wiser Application Module
System D	MTN5165-0000 + MTN5126-6000	1G Shutter + 1G Wiser Application Module
System D	MEG5171-0000 + MEG5116-6000	1G Universal Dimmer + 1G Wiser Application Module
System D	MTN5171-0000 + MTN5116-6000	1G Universal Dimmer + 1G Wiser Application Module
System D	MTN5172-0000 + MTN5126-6000	1G Universal Dimmer + 2G Wiser Application Module
System D	MEG5152-0000 + MEG5126-6000	2G Electronic Switch + 2G Wiser Application Module
System D	MTN5152-0000 + MTN5126-6000	2G Electronic Switch + 2G Wiser Application Module
System D	MEG5162-0000 + MEG5126-6000	2G Relay Switch + 2G Wiser Application Module
System D	MTN5162-0000 + MTN5126-6000	2G Relay Switch + 2G Wiser Application Module
System D	MEG5172-0000 + MEG5126-6000	2G Universal Dimmer + 2G Wiser Application Module
System M	MEG5180-0000 + MEG5116-0300	1G 1-10v Dimmer + 1G Wiser Application Module
System M	MTN5180-0000 + MTN5116-0300	1G 1-10v Dimmer + 1G Wiser Application Module
System M	MEG5185-0000 + MEG5126-0300	1G Dali Dimmer + 1G Wiser Application Module
System M	MEG5151-0000 + MEG5116-0300	1G Electronic Switch + 1G Wiser Application Module
System M	MTN5151-0000 + MTN5116-0300	1G Electronic Switch + 1G Wiser Application Module
System M	MEG5161-0000 + MEG5116-0300	1G Relay Switch + 1G Wiser Application Module
System M	MTN5161-0000 + MTN5116-0300	1G Relay Switch + 1G Wiser Application Module
System M	MEG5165-0000 + MEG5126-0300	1G Shutter + 1G Wiser Application Module
System M	MTN5165-0000 + MTN5126-0300	1G Shutter + 1G Wiser Application Module
System M	MEG5171-0000 + MEG5116-0300	1G Universal Dimmer + 1G Wiser Application Module
System M	MTN5171-0000 + MTN5116-0300	1G Universal Dimmer + 1G Wiser Application Module
System M	MEG5152-0000 + MEG5126-0300	2G Electronic Switch + 2G Wiser Application Module
System M	MTN5152-0000 + MTN5126-0300	2G Electronic Switch + 2G Wiser Application Module

Range	Commercial ref.	Description
System M	MEG5162-0000 + MEG5126-0300	2G Relay Switch + 2G Wiser Application Module
System M	MTN5162-0000 + MTN5126-0300	2G Relay Switch + 2G Wiser Application Module
System M	MEG5172-0000 + MEG5126-0300	2G Universal Dimmer + 2G Wiser Application Module
System M	MTN5172-0000 + MTN5126-0300	2G Universal Dimmer + 2G Wiser Application Module
Unica	NU350820	Wiser Antimicrobian blinds & shutters control switch
Unica	NU353720	Wiser Antimicrobian relay switch 10 A
Unica	NU351520	Wiser Antimicrobian universal push-button dimmer LED
Unica	NU351620	Wiser Antimicrobian universal rotary dimmer LED
Unica	NU3508xx	Wiser blinds & shutters control switch
Unica	NU3509xx	Wiser blinds & shutters control switch
Unica	NU3537xx	Wiser relay switch 10 A
Unica	NU3538xx	Wiser relay switch 10 A
Unica	NU3515xx	Wiser universal push- button dimmer LED
Unica	NU3517xx	Wiser universal push- button dimmer LED
Unica	NU3516xx	Wiser universal rotary dimmer LED
Unica	NU3518xx	Wiser universal rotary dimmer LED
Wiser	CCT5010-xxxx	Micromodule Dimmer
Wiser	MEG5010-0001	Micromodule Dimmer
Wiser	CCT5011-xxxx	Micromodule Relay
Wiser	MEG5011-0001	Micromodule Relay
Wiser	CCT5015-xxxx	Micromodule Shutter
Wiser	MEG5015-0001	Micromodule Shutter
Wiser	550B1012	Wiser micromodule dimmer
Wiser	550B1011	Wiser micromodule relay
Wiser	550B1013	Wiser micromodule shutter

Battery Push-buttons

Range	Commercial ref.	Description
Avatar ON	E8332RWMZB_xx	Wiser AvatarOn 2K Freelocate
Avatar ON	E8334RWMZB_xx	Wiser AvatarOn 4K Freelocate
Avatar ON T	E8634RWMZB_xx_xx	Wiser AvatarOn T 4K Freelocate
Avatar ON T	E8636RWMZB_xx_xx	Wiser AvatarOn T 6K Freelocate
Exact	WDE002906	Wiser FLS Exxact, 1 gang with rocker white
Exact	WDE002924	Wiser FLS Exxact, 2 gang with rocker white
Odace	S5xx531	Wiser FLS Odace , 1- 2Gang
System D	MEG5001-0600	Wiser FLS System D, 1- 2Gang w/o rocker
System D	MTN5001-0600	Wiser FLS System D, 1- 2Gang w/o rocker
System M	MEG5001-0300	Wiser FLS System M, 1- 2Gang w/o rocker

Range	Commercial ref.	Description
System M	MTN5001-0300	Wiser FLS System M, 1- 2Gang w/o rocker
Unica	NU557118	Free located wireless switch (1-2 gangs)
Unica	NU557120	Free located wireless switch (1-2 gangs)
Unica	NU557130	Free located wireless switch (1-2 gangs)
Unica	NU557154	Free located wireless switch (1-2 gangs)

PIR/Actuators

Range	Commercial ref.	Description
Exact	WDE00xxxx	Wiser Exxact Motion sensor dimmer
Exact	WDE003367	Wiser Exxact Motion sensor relay
Unica	NU3527xx	Connected Motion sensor & PB dimmer LED
Unica	NU3526xx	Connected Motion sensor with switch 10 A

Sensors

Range	Commercial ref.	Description
Wiser	550B1022	Wiser ceiling motion sensor
Wiser	CCT5950xx	Motion Sensor ceiling
Wiser	550B1028	Wiser Smoke alarm 230V
Wiser	CCT599501	Wiser Smoke alarm 230V
Wiser	550B1027	Wiser smoke alarm battery
Wiser	CCT599001	Wiser Smoke alarm battery
Wiser	550B1024	Wiser temperature and humidity sensor
Wiser	CCT5930xx	Temperature/Humidity Sensor
Wiser	550B1021	Wiser water leakage sensor
Wiser	CCT5920xx	Water Leakage Sensor
Wiser	550B1023	Wiser door/window contacts
Wiser	CCT5910xx	Window/Door Sensor

Sockets

Range	Commercial ref.	Description
Avatar ON T	E8631510SSZB_xx_xx	Wiser AvatarOn T 5P switch socket
Exact	WDE00xxxx	Exxact DSO schuko screwles Wiser
Exact	WDE00xxxx	Exxact Wiser Smart single socket outlet 16A
Fuga	545Dxxxx	Fuga Wiser Socket outlet 1.5M
Odace	S520559	Wiser Odace Smart socket outlet 16A single outlet - Pin earth type
Odace	S530559	Wiser Odace Smart socket outlet 16A single outlet - Pin earth type

Range	Commercial ref.	Description
Odace	S540559	Wiser Odace Smart socket outlet 16A single outlet - Pin earth type
System D	MEG2380-603x	Smart socket outlet 16A
System D	MTN2380-603x	Smart socket outlet 16A
System M	MEG2380-0xxx	Smart socket outlet 16A
System M	MTN2380-0xxx	Smart socket outlet 16A
Unica	NU5557xx	Wiser Unica Smart socket outlet 16A single outlet - Schuko type
Unica	NU5559xx	Wiser Unica Smart socket outlet 16A single outlet - Pin earth type
Wiser	CCT711119	Wiser smart plug
Wiser	CCTFR6500	Wiser Plug - FR - Type E
Wiser	CCTFR6501	Wiser Plug (Schuko version)

Thermostats

Commercial ref.	Range	Description
CCTFR6100	Wiser	Wiser Radiator Thermostat
CCTFR6400	Wiser	Wiser Room Thermostat

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