



Product: EKinEX KONNECT4
Description: KONNECT4 - STEP-BY-STEP TUTORIAL
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INTRODUCTION

This document is a step-by-step guide for the configuration of the KONNECT4 gateway and related drivers for Control4, in Composer Pro software, in order to configure Ekinex devices in the so-called “EASY MODE” (without the need of ETS PROFESSIONAL).

For a complete documentation of the Konnect4 solution, please refer to the CONFIGURATION MANUAL available on Ekinex website, in the section dedicated to Konnect4.

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1

KONNECT4 SETUP

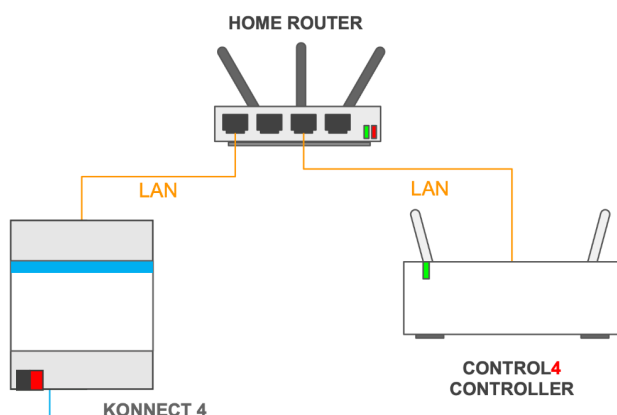
1.1 PRELIMINARY CHECKS

Before commissioning a new installation, please ensure that your KONNECT4 is at least at version 2.0.8. Older versions do not support the drivers on the online catalogue; please refer to the complete CONFIGURATION MANUAL for the software update procedure.

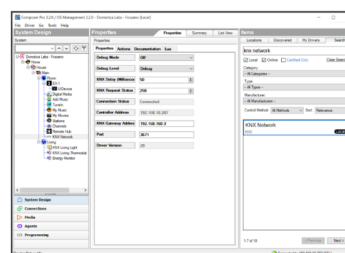
1.2 INSTALLATION

SETUP & CONNECTION

The following picture shows the typical connections of a KONNECT4 installation:



1a Connect Konnect 4 to the same LAN of the Control4 controller



1b Double-click on SDDP discovery to add Konnect 4 driver to the project

KONNECT4 must be connected:

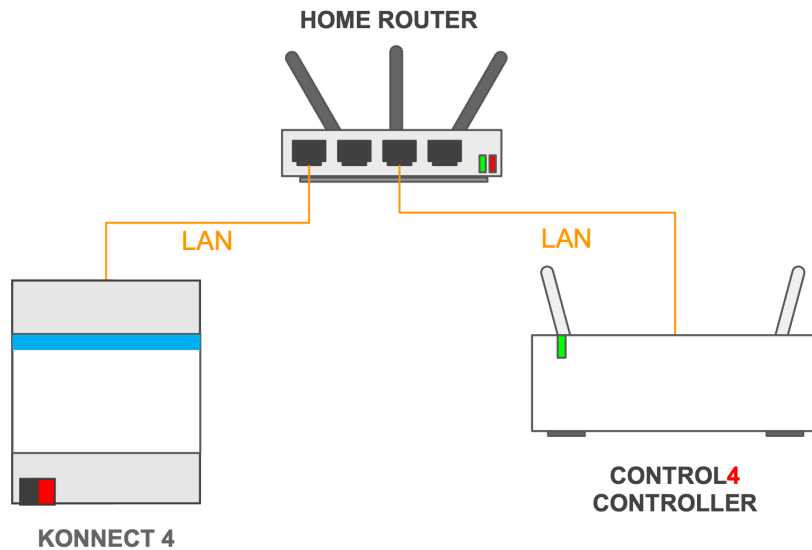
- To a PoE LAN cable or 12-24V DC dedicated power supply unit
- To the same LAN network of the Control4 controller(s)
- To the bus with the standard red+black connector and a certified KNX twisted-pair cable

The following other devices are expected to be connected to the bus:

- A dedicated KNX POWER SUPPLY
- One or more EKINEX devices compatible with KONNECT4

- Eventually other KNX-certified devices

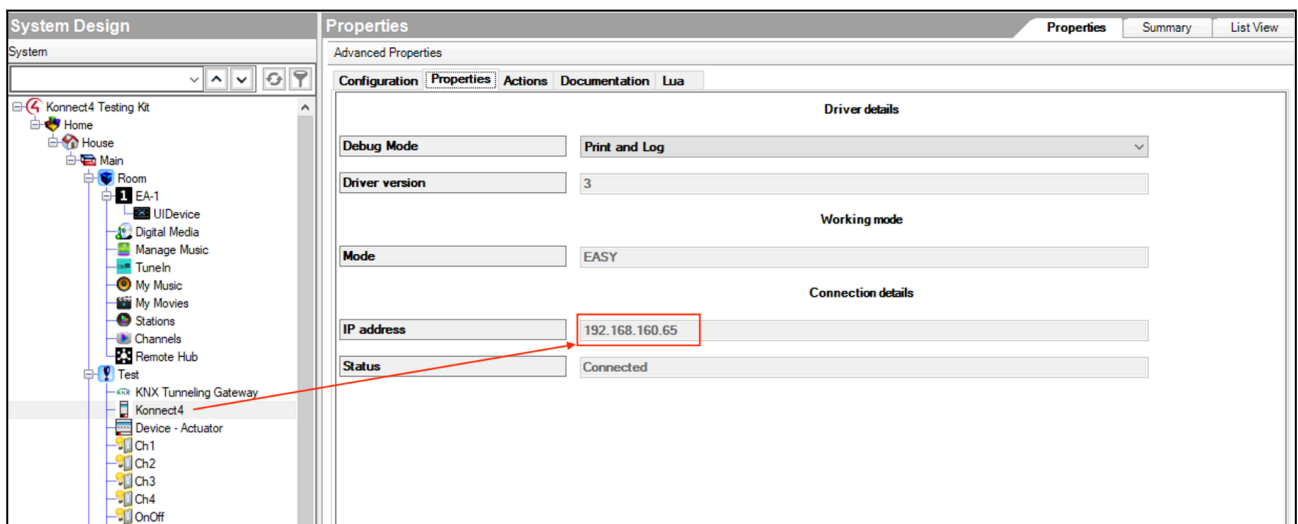
KONNECT4 must be in the same network of the Control4 controller:



SDDP DISCOVERY

Wait for a couple of minutes until it appears in the DISCOVERED section of COMPOSER PRO.

Double-click on the discovered item to add it to the project; when done, click on it in the tree menu (in SYSTEM DESIGN view), and open its PROPERTIES tab:

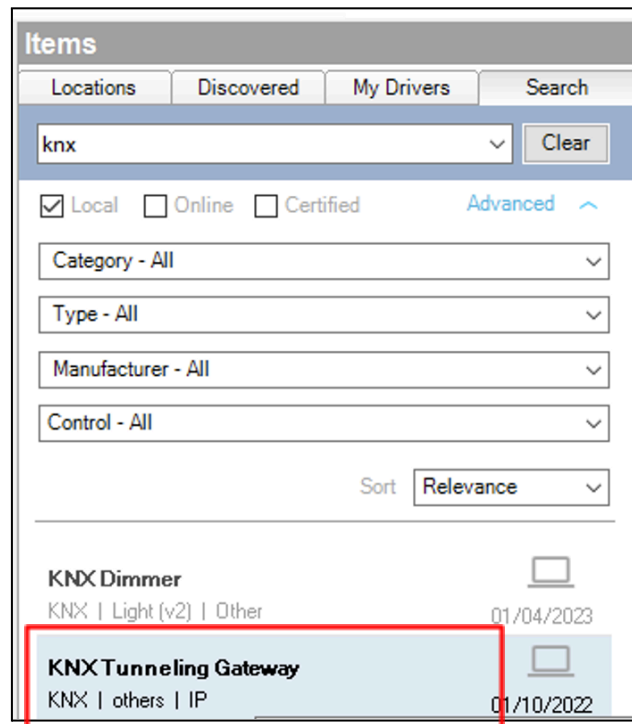


Finally, take note of the IP address of Konekt4 for next steps.

1.3 KNX COMMUNICATION SETUP

Search for the following driver in the SEARCH tab of the right panel, and add it to your project:

KNX Tunnelling Gateway



Select it in the tree menu and enter the Konnect4 IP address in the KNX GATEWAY ADDRESS field, as shown in the following picture:

Composer Pro 3.3.3 / OS Management Package 3.3.3 - Konnect4 Testing Kit (Local)

File Driver Go Tools Feedback Help

System Design

System

- Konnect4 Testing Kit
 - Home
 - House
 - Main
 - Room
 - EA-1
 - UI Device
 - Digital Media
 - Manage Music
 - TuneIn
 - My Music
 - My Movies
 - Stations
 - Channels
 - Remote Hub
 - Testing Kit
 - KNX Tunneling Gateway
 - Konnect4
 - Actuator
 - Dimmer
 - Signum

Properties

Properties Actions Documentation Lua

Debug Mode	Off
Debug Level	Debug
KNX Delay (Milliseconds)	50
KNX Request Status Delay (Milliseo	250
Connection Status	Connected
Use Controller Address?	Yes
Controller Address	192.168.160.124
KNX Gateway Address	192.168.160.195
Port	3671
Driver Version	42

Items

Locations	Discovered	My Drivers	Search
Type	Manufacturer	Model	
Lights	Control4	C4-DIN-8RELE-V2	
Intercom	Akuvox	E18	
Security	2N TELEKOMUNI...	2N IP Vario	

Auto add identified devices Info

Connected to 192.168.160.124 (SSL)

12:25
26/07/2023

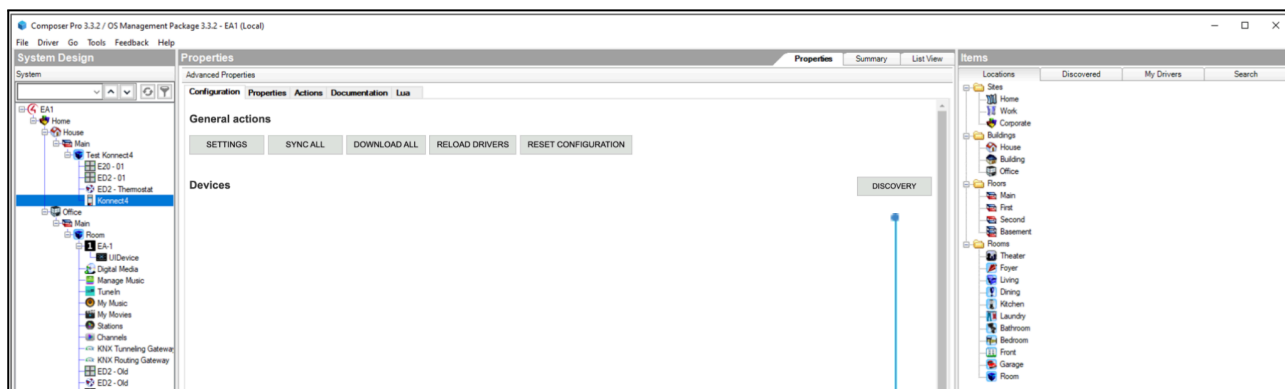
2

DEVICES SETUP

2.1 ADDRESSING

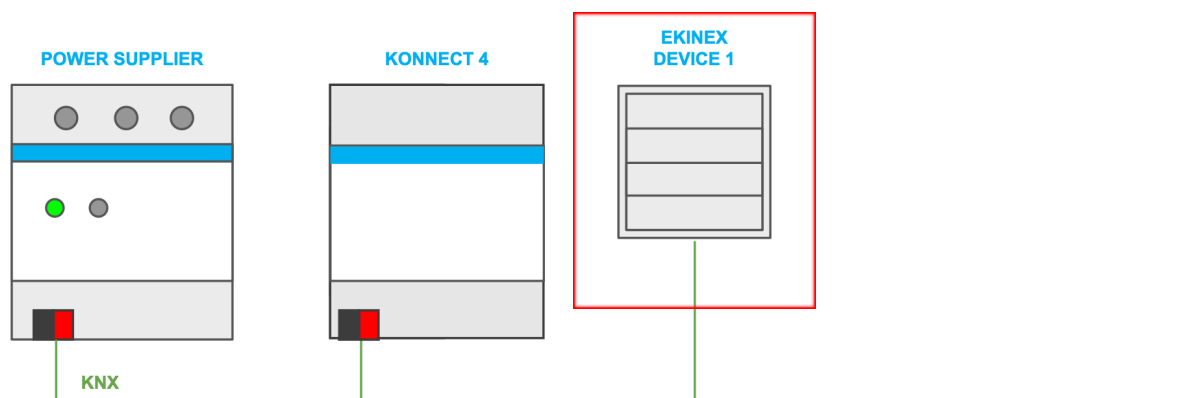
DISCOVERY

Open the **KONNECT4** driver in COMPOSER PRO and select the CONFIGURATION tab.

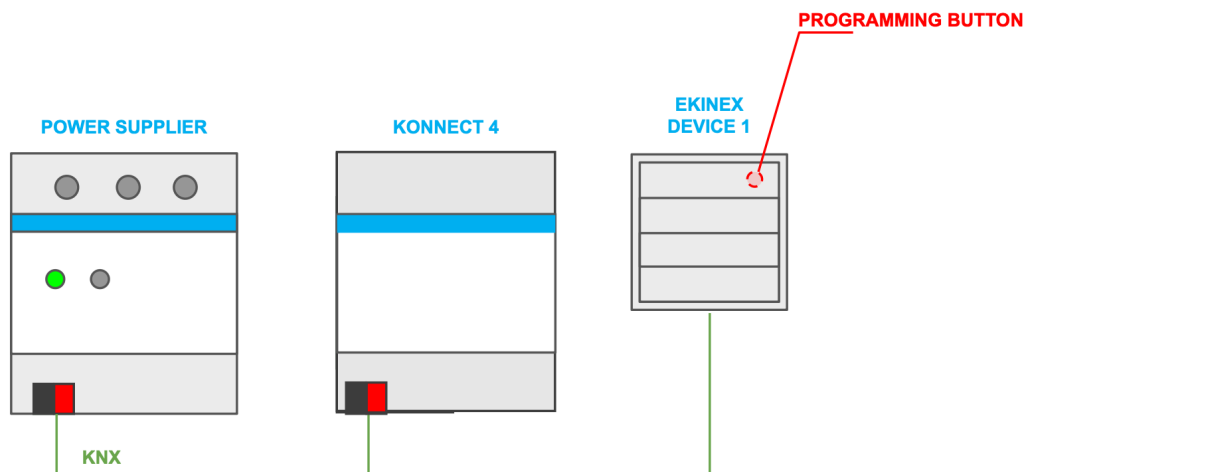


DISCOVERY BUTTON

Press the **DISCOVERY BUTTON**, and connect (with a KNX certified cable) the first device to the same bus where the power unit and KONNECT4 are already connected:



A maximum of 63 devices can be connected to the bus in EASY MODE with a single power supply unit and KONNECT4 gateway



Press its programming button, or the combination of front buttons that makes it enter in programming mode (please refer to the user manual of the specific product for more details):

After some seconds, KONNECT4 recognises the new device, assigns it a unique address, and shows it in the DEVICES list (in NEW status):

Devices						DISCOVERY
	NAME	TYPE	MODEL	DEVICE ID	ADDRESS	STATUS
  	Device 1	Pushbutton	EK-E20-TP	1	1.1.1	 New
  	Device 2	Pushbutton	EK-ED2-TP	2	1.1.2	 New

Repeat the same procedure by keeping the discovery active, until the last device has been added. At that point, **press the STOP button** and wait until the DISCOVERY button is displayed again.

ADD DRIVERS TO PROJECT

Open the DISCOVERED tab of the right panel in COMPOSER PRO; all the new detected devices are listed here.

Double-click on each of them, to add the corresponding drivers to the project; the corresponding line(s) in KONNECT4 change to UNSYNCED status:

Devices						DISCOVERY
	NAME	TYPE	MODEL	DEVICE ID	ADDRESS	STATUS
  	Device 1	Pushbutton	EK-E20-TP	1	1.1.1	 Unsynchronized
  	Device 2	Pushbutton	EK-ED2-TP	2	1.1.2	 Unsynchronized

RENAME DEVICES

To rename a device, simply change its name in the tree menu in SYSTEM DESIGN (F2 or right-click on it and select “Rename”).

COEXISTENCE WITH ETS-CONFIGURED DEVICES

EKINEX DEVICES configured in EASY MODE with KONNECT4 can coexist in the same bus line with devices already programmed with ETS PROFESSIONAL.

Guidelines for ETS programming in order to avoid conflicts:

- Assign high physical addresses e.g. 1.1.200, 1.1.201 etc... being the first addresses (1.1.1, 1.1.2 etc...) in use by KONNECT4

As an alternative, set a different STARTING PHYSICAL ADDRESS in the KONNECT4 driver, in order to start assigning addresses in EASY MODE, after the devices programmed with ETS

- Use group address in the extended range e.g. 16/0/1 or higher (being the lower addresses potentially used by KONNECT4)

2.2 CONFIGURATION

Open the DEVICE DRIVERS in SYSTEM DESIGN and change their PROPERTIES in order to configure their behavior. Please refer to the next chapters for further details about each supported product family.

2.3 DUPLICATION

To duplicate the behavior of a device into another, enter the ACTIONS tab of the KONNECT4 driver and press COPY DRIVER CONFIGURATION BY ID, by entering the ID of the source device, and one or more (comma separated) IDS of the devices which must get the same configuration.

2.4 SYNC & DOWNLOAD

After changing the properties of one or more drivers, they must be synchronized with the corresponding devices.

To do so:

1. Open the KONNECT4 driver
2. Identify the drivers in “UNSYNCED” status
3. Press the corresponding SYNC button, or the SYNC ALL button

SYNC ALL DEVICES

General actions

SETTINGS SYNC ALL DOWNLOAD ALL RELOAD DRIVERS RESET CONFIGURATION

Devices

DISCOVERY

NAME	TYPE	MODEL	DEVICE ID	ADDRESS	STATUS
Device 1	Pushbutton	EK-E20-TP	1	1.1.1	Unsynced
Device 2	Pushbutton	EK-ED2-TP	2	1.1.2	Download needed

SYNC SINGLE DEVICE

When done:

4. Press the DOWNLOAD button of the elements in “DOWNLOAD NEEDED” status, or the DOWNLOAD ALL button

DOWNLOAD ALL DEVICES

General actions

SETTINGS SYNC ALL DOWNLOAD ALL RELOAD DRIVERS RESET CONFIGURATION

Devices

DISCOVERY

NAME	TYPE	MODEL	DEVICE ID	ADDRESS	STATUS
Device 1	Pushbutton	EK-E20-TP	1	1.1.1	Download needed
Device 2	Pushbutton	EK-ED2-TP	2	1.1.2	Download needed

DOWNLOAD SINGLE DEVICE

In case of DOWNLOAD ERROR...

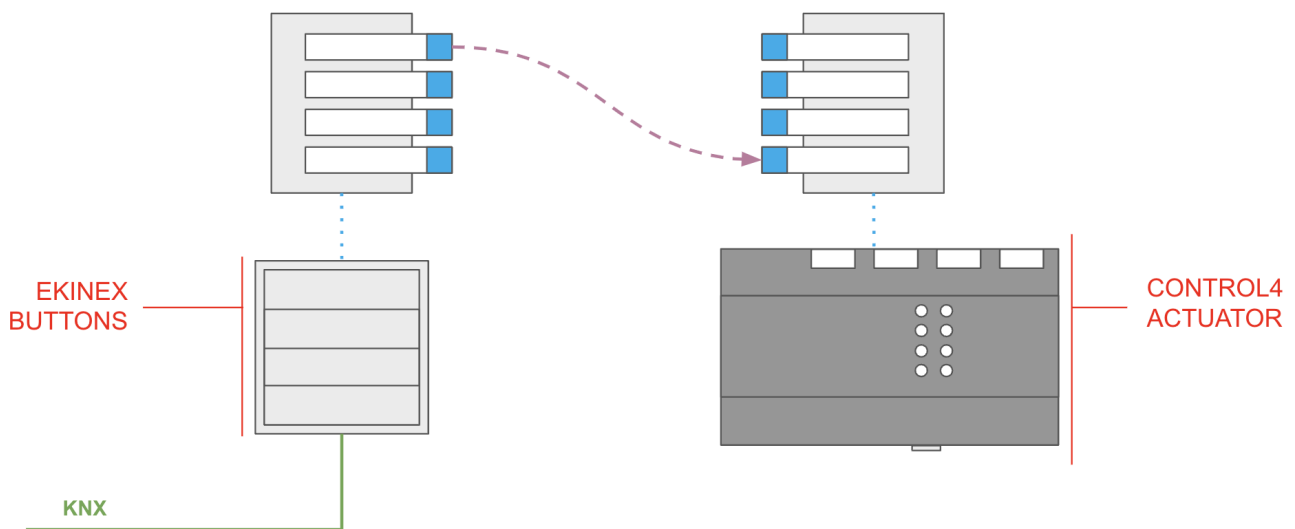
General actions						
SETTINGS SYNC ALL DOWNLOAD ALL RELOAD DRIVERS RESET CONFIGURATION						
Devices						DISCOVERY
	NAME	TYPE	MODEL	DEVICE ID	ADDRESS	STATUS
  	Device 1	Pushbutton	EK-E20-TP	1	1.1.1	 Downloaded
  	Device 2	Pushbutton	EK-ED2-TP	2	1.1.2	 Download error

... please do the following checks:

- The device must be connected to the bus (press its programming button and verify the red LED goes on; press again to switch it off)
- At least one button must be enabled in the PROPERTIES tab of the driver
- No other devices with the same physical address must be present on the bus

2.4 CONNECTIONS

Once configured all the devices, use CONNECTIONS to make them work together and/or with third party drivers:



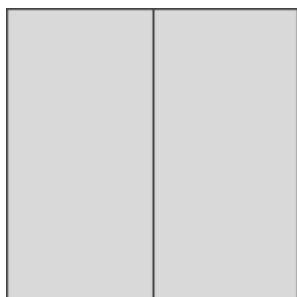
Please refer to the following chapters for a detailed overview of the available connections for each supported product family.

3 KEYPADS

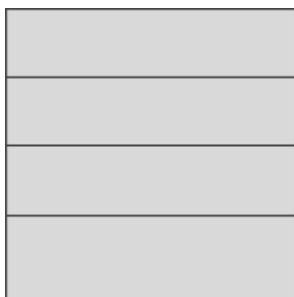
3.1 BUTTONS CONFIGURATION

LAYOUT

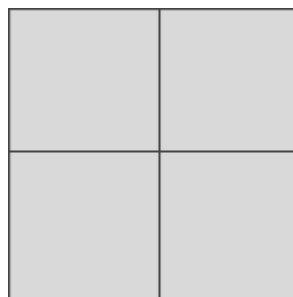
Select the most appropriate layout with the BUTTONS LAYOUT drop-down menu. SERIE FF:



**2 RECTANGULAR
ROCKERS**

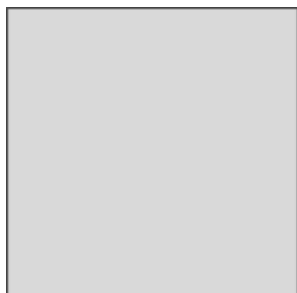


**4 RECTANGULAR
ROCKERS**

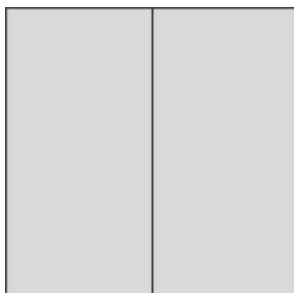


**4 SQUARE
ROCKERS**

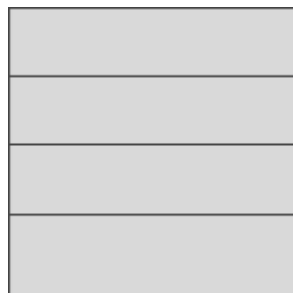
SERIE 71:



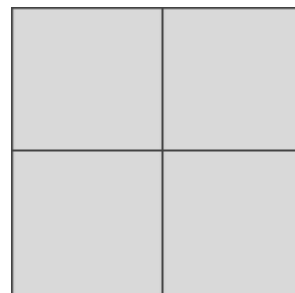
**SINGLE
ROCKER**



**2 RECTANGULAR
ROCKERS**

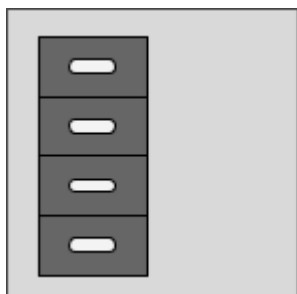


**4 RECTANGULAR
ROCKERS**

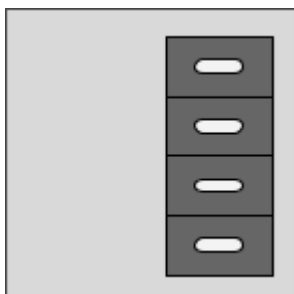


**4 SQUARE
ROCKERS**

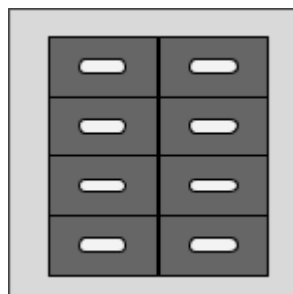
SERIE 20VENTI:



**4 BUTTONS
LEFT SIDE**

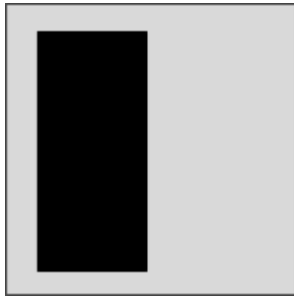


**4 BUTTONS
RIGHT SIDE**

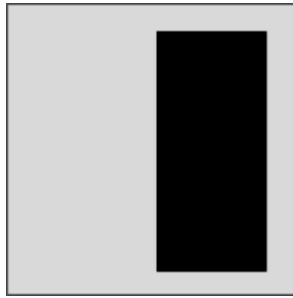


8 BUTTONS

SIGNUM:



LEFT DISPLAY
(EK-EV2-TP-L)



RIGHT DISPLAY
(EK-EV2-TP-R)

BUTTON BEHAVIOR

PROPERTIES

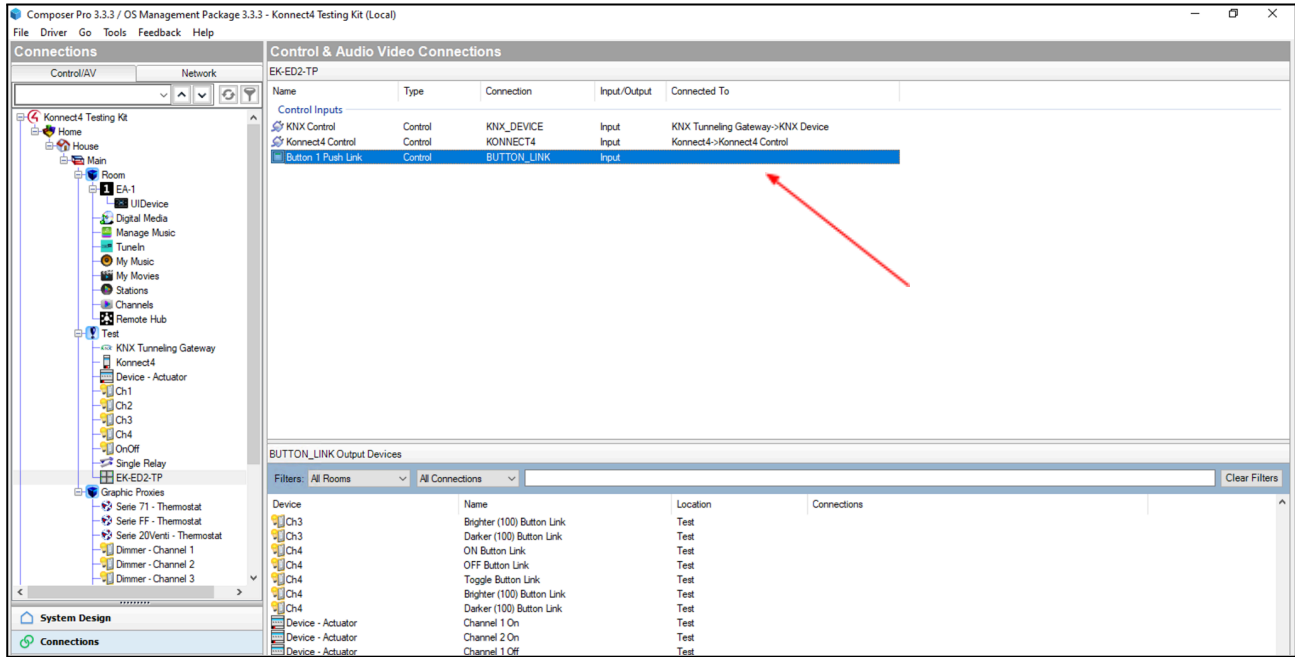
For each button, in the BUTTONS CONFIGURATION section set the following properties:

MODE	Select one of the following options: <table><tr><td>INACTIVE</td><td>Not in use</td></tr><tr><td>PRESS/RELEASE ON/OFF</td><td>Press = ON (1) Release = OFF (0)</td></tr><tr><td>PRESS/RELEASE OFF/ON</td><td>Press = OFF (0) Release = ON (1)</td></tr></table>	INACTIVE	Not in use	PRESS/RELEASE ON/OFF	Press = ON (1) Release = OFF (0)	PRESS/RELEASE OFF/ON	Press = OFF (0) Release = ON (1)
INACTIVE	Not in use						
PRESS/RELEASE ON/OFF	Press = ON (1) Release = OFF (0)						
PRESS/RELEASE OFF/ON	Press = OFF (0) Release = ON (1)						
NAME	Assign a name to the button						
ENABLE SHORT / LONG PRESS	Select ENABLED to discriminate between short and long press. Examples of usage: <table><tr><td>DISABLED</td><td>ON/OFF lights switching Relay command</td></tr><tr><td>ENABLED</td><td>Dimmer lights control Shutters / blinds control</td></tr></table> If enabled, the following sub-property is shown: <table><tr><td>CLICK DELAY</td><td>Minimum time for a press to be considered as long press</td></tr></table>	DISABLED	ON/OFF lights switching Relay command	ENABLED	Dimmer lights control Shutters / blinds control	CLICK DELAY	Minimum time for a press to be considered as long press
DISABLED	ON/OFF lights switching Relay command						
ENABLED	Dimmer lights control Shutters / blinds control						
CLICK DELAY	Minimum time for a press to be considered as long press						

COMMAND TYPE	The BUTTON_LINK connection can transport the following commands: DO_CLICK A toggle effect when you press & release the button typically used to switch ON/OFF a light DO_PUSH The press event on the button DO_RELEASE The release event on the button Not all the drivers support correctly the DO_CLICK event. If nothing happens on short-press of the button, change the COMMAND TYPE property from "CLICK" (default) to "PUSH" or "BOTH".
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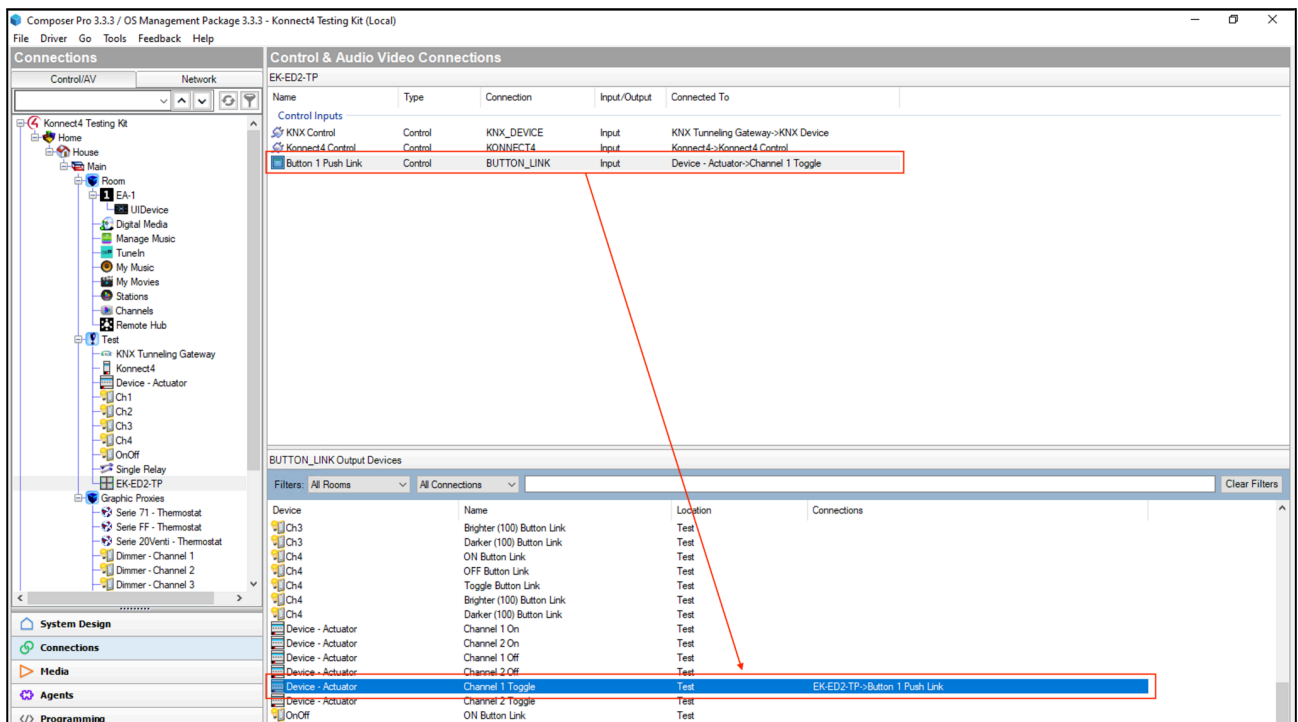
CONNECTIONS

By switching to **CONNECTIONS** view, a single connection of type **BUTTON_LINK** is available for each enabled button:



By selecting the connection, in the bottom part of the screen are listed all the compatible drivers e.g. light switches, dimmers etc... (you can filter the list with keywords).

Drag the connection from the upper part to the lower part, to associate the button to another device and make them work together:



The **BUTTON_LINK** connection can transport the following commands:

- DO_CLICK** A toggle effect when you press & release the button, typically used to switch ON/OFF a light
- DO_PUSH** The press event on the button
- DO_RELEASE** The release event on the button

Not all the drivers support correctly the **DO_CLICK** event. If nothing happens when you short-press the button, change the **COMMAND TYPE** property from "CLICK" (default) to "PUSH" or "BOTH".



Ensure that the following connections are correctly associated:

NAME	TYPE	DESCRIPTION
KNX CONTROL	KNX_DEVICE	Must be associated to the KNX communication driver
KONNECT4 CONTROL	KONNECT4	Must be associated to the KONNECT4 driver

LED BEHAVIOR

PROPERTIES

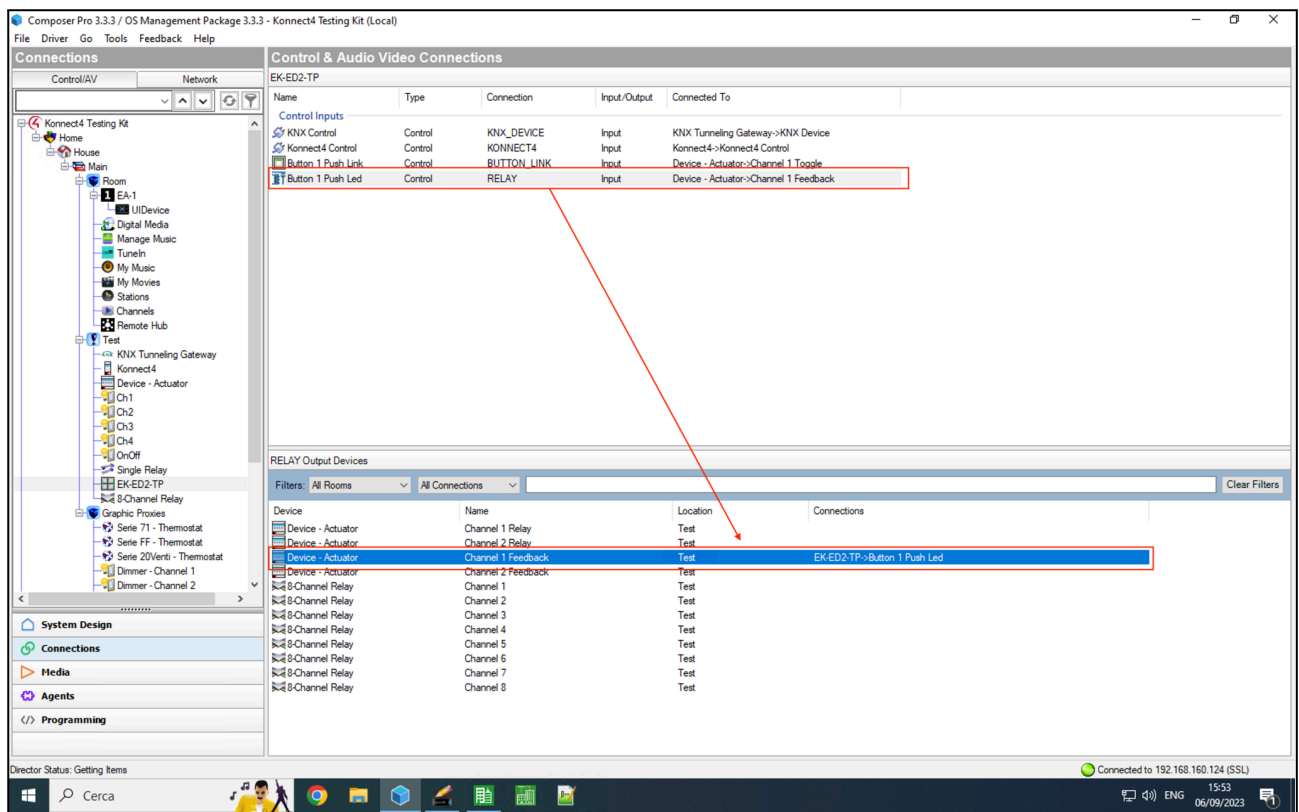
In the **BUTTONS CONFIGURATION** section set the following properties to control the behavior of the LED:

LED	Select ENABLED to manage the LED associated to the button	
LED BEHAVIOR	Select one of the following options:	
	FOLLOW BUTTON STATE	The LED switches ON when the button is pressed, and OFF when released
	FOLLOW CONNECTION	The LED switches ON and OFF according to the value received on the RELAY connection
	PROGRAMMED	The LED can be controlled in PROGRAMMING section
RGB ON COLOR RGB OFF COLOR	Select the desired color for the LED when in ON and in OFF status Note: these settings are available only for EK-E20-TP models (Serie 20VENTI)	

CONNECTIONS

In “FOLLOW CONNECTION” condition, if the driver previously associated with the **BUTTON_LINK** connection (e.g. switch actuator) offers its state on the same connection, there is no need to make further connections.

Otherwise, the LED can be controlled with a second connection (**BUTTON X PUSH LED**) made available in the **CONNECTIONS** view:

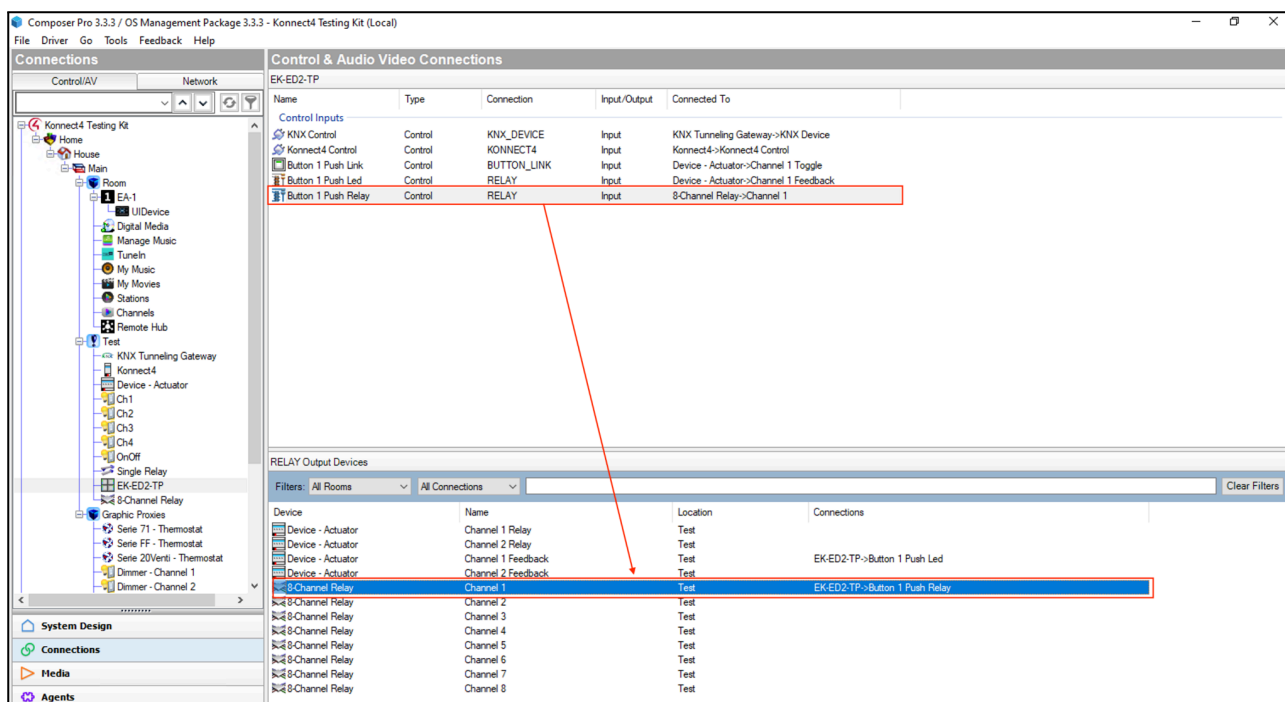


This connection is of type RELAY, that means it can be directly connected to third-party drivers expecting to switch ON/OFF a light (or similar). Example of configuration in combination with a Control4 switch actuator:

RELAY ADDITIONAL CONNECTION

In the BUTTONS CONFIGURATION section it is possible to enable an additional connection of type RELAY, and set its behavior with the ENABLE RELAY CONNECTION property.

In the CONNECTIONS view an additional connection is made available (BUTTON X PUSH RELAY); this connection can be directly connected to drivers which do not support the BUTTON_LINK like e.g. the Control4 DIN-rail switch actuator:



SIGNUM SPECIFIC PROPERTIES

The following general settings are available only for SIGNUM:

THEME	Select the graphical skin on SIGNUM's display between the following: - Theme 1: minimal layout with no background - Theme 2: layout with gradient background	
STANDBY ENABLED	Enable the display automatic switch-off after a timeout	
	If enabled set also the following:	
	STANDBY TIMEOUT	Number of seconds for automatic display switch off
	STANDBY HOMEPAGE	Default page on screen after recovery from standby. Choose among the following: - Thermostat page - Audio page - Buttons page 1 - Buttons page 2 - Buttons page 3
DISABLE GRAPHICS OVERRIDE	Set to TRUE to avoid overriding graphic settings when saving the configuration (e.g. because previously customized with EKINEX TOOL app)	

Only for SIGNUM, the following additional properties are also available for each button:

APPEARANCE	Determines if the button must contain an ICON or a TEXT
TEXT LINE 1 TEXT LINE 2	In case of TEXT appearance, enter the label to be displayed, eventually on two rows. You can enter up to 14 characters in total.
ICON	Index of the symbol to be displayed. Scan the following QR code or open manually EKINEX TOOL app and select SIGNUM ICONS in the INFO area, to display the updated set of symbols:  List of symbols:  LIGHTING



MULTIMEDIA



ASSISTANCE



HOTEL



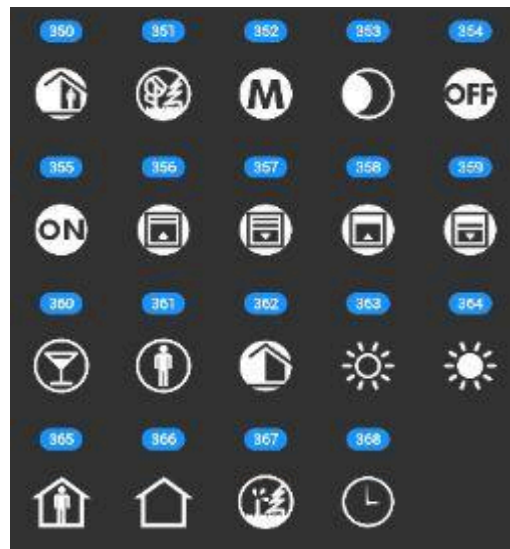
ENERGY



HVAC



DOORS / GARAGE



SCENES



INDICATORS



Not all the functionalities offered by SIGNUM when configured in ETS, are available in EASY MODE with KONNECT4.

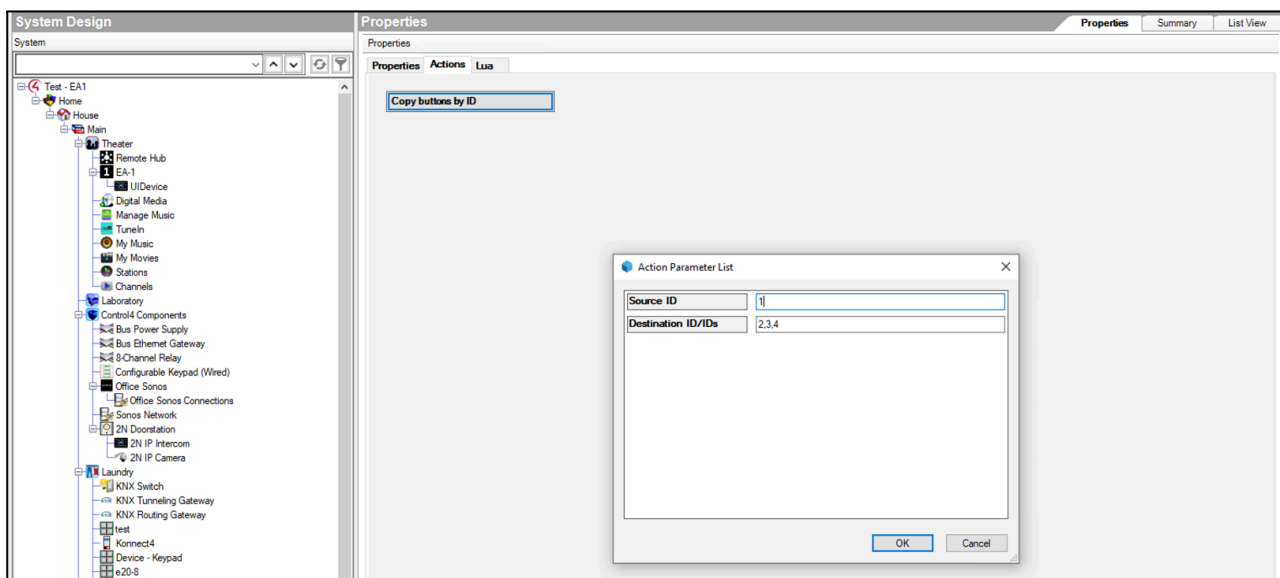
In general, the following functionalities are not available in EASY MODE:

- Multimedia
- Air Conditioning
- Numeric values visualization
- Shift register

Also the buttons (up to 12) can be configured with KONNECT4 in PRESS / RELEASE / CLICK mode, without the possibility to show the picker for brightness, tunable white, and shading / shutter control. This is due to the fact the behaviour of each button, is later defined in Composer Pro with the connections.

BUTTONS BEHAVIOR DUPLICATION

Open the ACTIONS tab and press COPY BUTTONS BY ID to duplicate the behavior of a button (SOURCE ID) to one or more other button(s) of the same device (comma separated):



3.2 THERMOSTAT CONFIGURATION

BASIC SETTINGS

The configuration of the integrated thermostat offers a huge list of properties; the most commonly used are the following:

THERMOSTAT CONFIGURATION - GENERAL SETTINGS

THERMOSTAT ENABLED	Select ENABLED to activate the integrated thermostat
SEASON MODE	Determine if heating, cooling or both seasons have to be managed

THERMOSTAT CONFIGURATION - HEATING / COOLING

For the heating and cooling season (if activated) the following settings are available:

TYPE	Select the most appropriate typology of heating system controlled by the thermostat
SETPOINT MODES ENABLED	Determine if to use multiple setpoints (associated to the operating modes) or not (single setpoint)
VENTILATION ENABLED	Determine if the ventilation management has to be activated or not

FANCOIL CONFIGURATION

If the ventilation is enabled, the following properties are added to the list:

VENTILATION CONTROL TYPE	Select the preferred control strategy for the ventilation
--------------------------	---



For a detailed list of all available properties for the thermostat, please refer to KONNECT4 USER MANUAL

CONNECTIONS

When the thermostat is enabled, the following CONNECTION of type RELAY is made available:

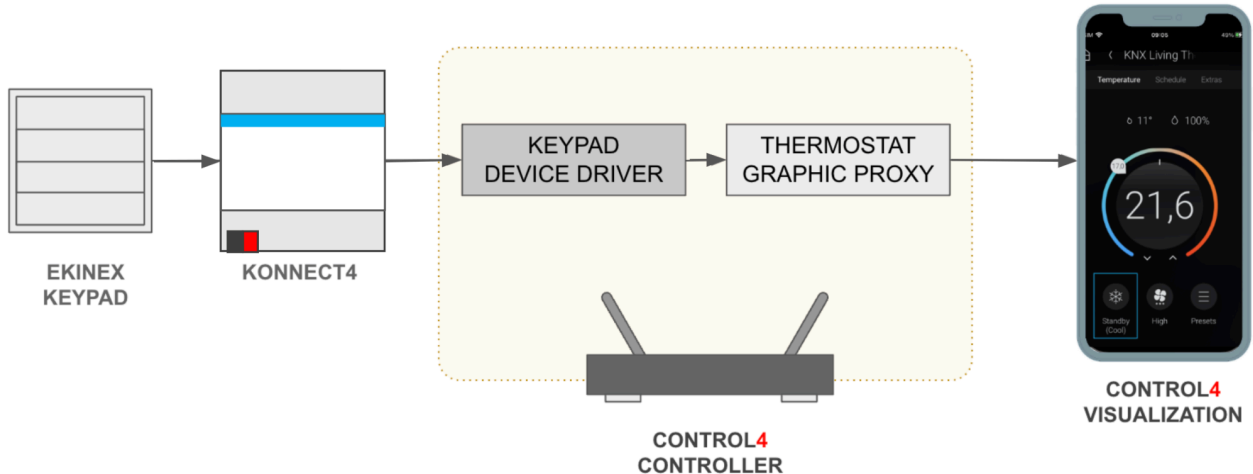
The screenshot shows the Konnect4 software interface. On the left, a tree view displays the system design, including a 'Room' and 'Test' section. The main area shows a table of connections. A red box highlights the 'Thermostat Heating Relay' connection, which is of type 'RELAY' and has an input of '8-Channel Relay->Channel 8'. A red arrow points from this connection to the 'RELAY Output Devices' table below. This table lists various devices and their connections, with a red box highlighting the 'EK-ED2-TP->Thermostat Heating Relay' connection.

Device	Name	Location	Connections
Device - Actuator	Channel 1 Relay	Test	
Device - Actuator	Channel 2 Relay	Test	
Device - Actuator	Channel 1 Feedback	Test	EK-ED2-TP->Button 1 Push Led
Device - Actuator	Channel 2 Feedback	Test	EK-ED2-TP->Button 1 Push Relay
8-Channel Relay	Channel 1	Test	
8-Channel Relay	Channel 2	Test	
8-Channel Relay	Channel 3	Test	
8-Channel Relay	Channel 4	Test	
8-Channel Relay	Channel 5	Test	
8-Channel Relay	Channel 6	Test	
8-Channel Relay	Channel 7	Test	
8-Channel Relay	Channel 8	Test	EK-ED2-TP->Thermostat Heating Relay

Connect it to the switch actuator to command ON/OFF the heating / cooling system, like in the previous sample screenshot.

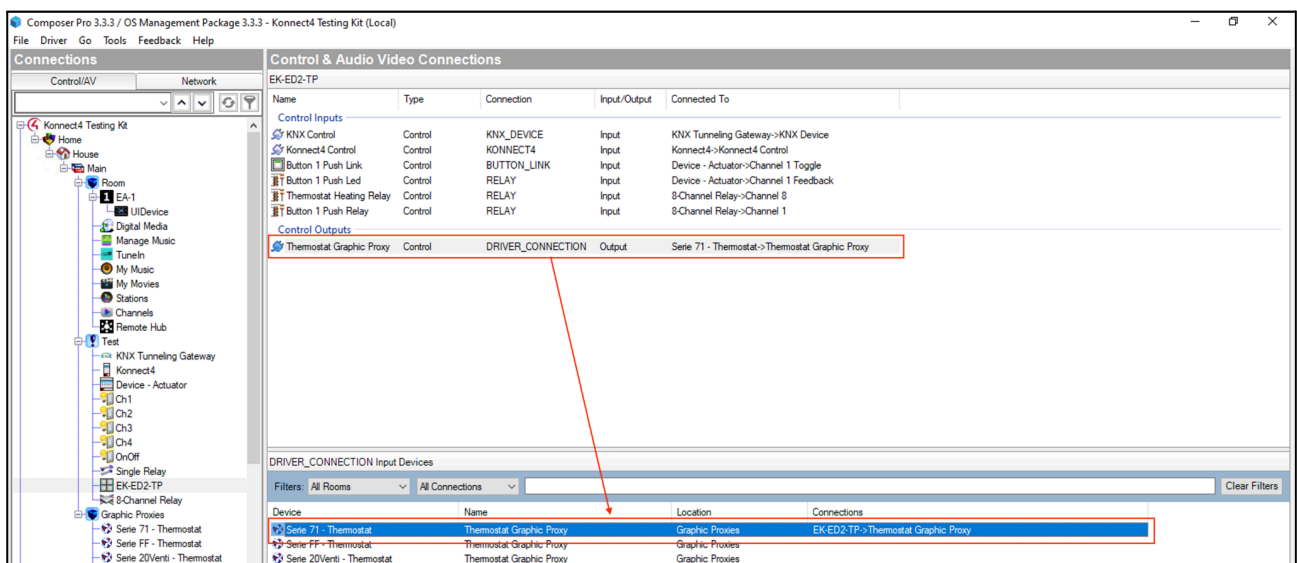
GRAPHIC PROXY

In order to see the integrated thermostat of a keypad in Control4 visualization, an additional driver called THERMOSTAT GRAPHIC PROXY must be added to the project, and connected to the KEYPAD DEVICE DRIVER:



To do so:

- Search for the THERMOSTAT GRAPHIC PROXY in the drivers SEARCH and add it to the project (one for each thermostat to be controlled in the visualization)
- Switch to the CONNECTIONS view of COMPOSER PRO
- Open the DEVICE DRIVER of the KEYPAD
- Select the DRIVER_CONNECTION and identify the GRAPHIC PROXY in the bottom part, to be associated with
- Drag from the upper part to the bottom part to bind the two connections



- Press the FILE > REFRESH NAVIGATORS menu item before consulting the Control4 app /

touch panel

Examples of visualization in the Control4 mobile app:



REVISIONS

DATE	REF	NOTES
2023-09-05	EKINEX.KONNECT4.TUTORIAL.EN.001	First document release
2025-02-03	EKINEX.KONNECT4.TUTORIAL.EN.002	Update to 2.0.8 software version
2025-03-03	EKINEX.KONNECT4.TUTORIAL.EN.003	Konnnect4 hardware update (4 DIN Rail Modules hardware) Drivers available on the online catalogue