



Product: EKINEX KONNECT4
Description: KONNECT4 - STEP-BY-STEP TUTORIAL
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SUMMARY

SUMMARY.....	3
KONNECT4 SETUP.....	5
1.1 PRELIMINARY OPERATIONS.....	5
EKINEX DRIVERS DOWNLOAD.....	5
EKINEX DRIVERS INSTALLATION.....	6
1.2 KONNECT4 INSTALLATION.....	6
NETWORK CONNECTION.....	6
SDDP DISCOVERY.....	6
1.3 KNX COMMUNICATION SETUP.....	7
DEVICES SETUP.....	9
2.1 ADDRESSING.....	9
DISCOVERY.....	9
ADD DRIVERS TO PROJECT.....	10
RENAME DEVICES.....	11
COEXISTENCE WITH ETS-CONFIGURED DEVICES.....	11
2.2 CONFIGURATION.....	11
2.3 DUPLICATION.....	11
2.4 SYNC & DOWNLOAD.....	12
2.4 CONNECTIONS.....	13
KEYPADS.....	14
3.1 BUTTONS CONFIGURATION.....	14
LAYOUT.....	14
BUTTON BEHAVIOR.....	15
PROPERTIES.....	15
CONNECTIONS.....	16
LED BEHAVIOR.....	17
PROPERTIES.....	17
CONNECTIONS.....	18
RELAY ADDITIONAL CONNECTION.....	18
BUTTONS BEHAVIOR DUPLICATION.....	19
3.2 THERMOSTAT CONFIGURATION.....	20
BASIC SETTINGS.....	20
THERMOSTAT CONFIGURATION - GENERAL SETTINGS.....	20
THERMOSTAT CONFIGURATION - HEATING / COOLING.....	20
FANCOIL CONFIGURATION.....	20
CONNECTIONS.....	20
GRAPHIC PROXIES.....	22

4.1 THERMOSTAT.....	22
REVISIONS.....	24

KONNECT4 SETUP

1.1 PRELIMINARY OPERATIONS

EKINEX DRIVERS DOWNLOAD

Download the following drivers into a folder on you PC:

NAME	TYPE	DESCRIPTION
<u>KONNECT4</u>	GATEWAY	Main driver for KONNECT4
<u>KEYPAD</u>	DEVICE DRIVER	Allows the configuration of pushbuttons and integrated thermostat of EKINEX keypads in EASY MODE
<u>ACTUATOR</u>	DEVICE DRIVER	Allows the configuration of ON/OFF actuators for RELAY and SHUTTER / BLIND control
<u>DIMMER</u>	DEVICE DRIVER	Allows the configuration of dimmer actuators
<u>THERMOSTAT</u>	GRAPHIC PROXY	Brings the integrated HVAC controller of EKINEX keypads into visualization
<u>SHUTTER</u>	GRAPHIC PROXY	Allows the control of ACTUATOR drivers which channels are configured in SHUTTER / BLIND mode
<u>ON/OFF LIGHT</u>	GRAPHIC PROXY	Allows the control of ON/OFF lights in combination with the ACTUATOR driver
<u>DIMMER LIGHT</u>	GRAPHIC PROXY	Allows the control of dimmable lights in combination with the ACTUATOR or DIMMER driver



Pay attention that the downloaded files have the original name, otherwise they don't work properly. For example, the following file name...

Konnect4 (1).c4z

... would NOT work!

EKINEX DRIVERS INSTALLATION

Open COMPOSER PRO, press the menu item

DRIVER > ADD OR UPDATE DRIVER OR AGENT

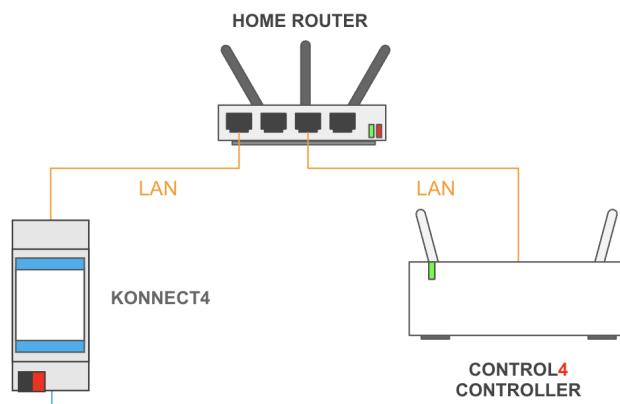
and select the previously downloaded driver files.

Check that the new drivers are available in COMPOSER PRO by searching e.g. the keyword "EKINEX" in the SEARCH tab of the right panel (ensure that "local" search is selected).

1.2 KONNECT4 INSTALLATION

NETWORK CONNECTION

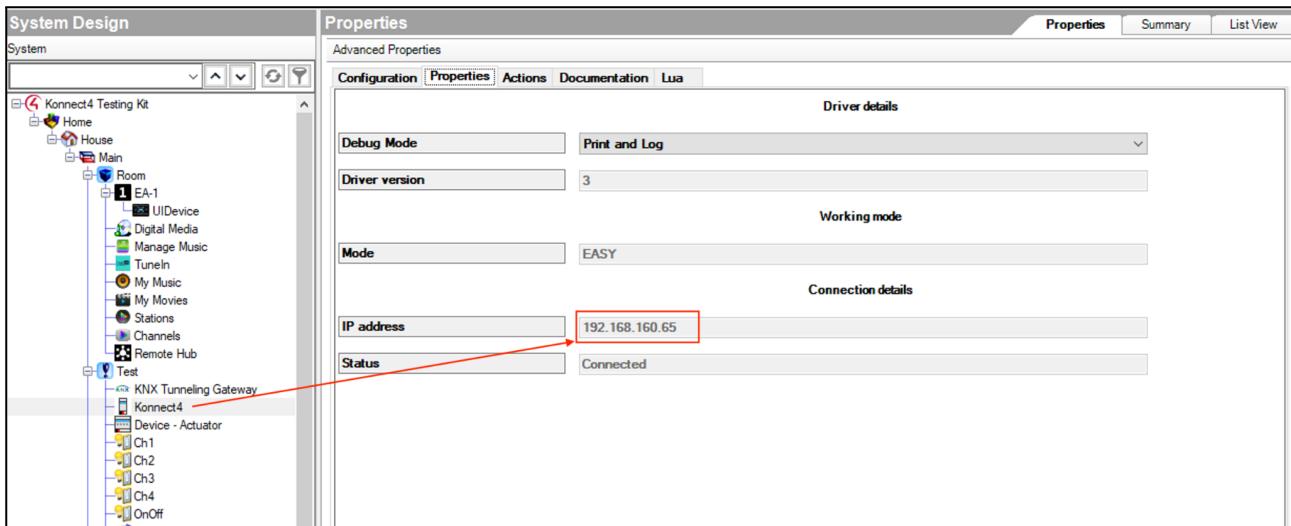
Connect KONNECT4 to a 24V DC power supply and the same local network (LAN) of the Control4 controller:



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:

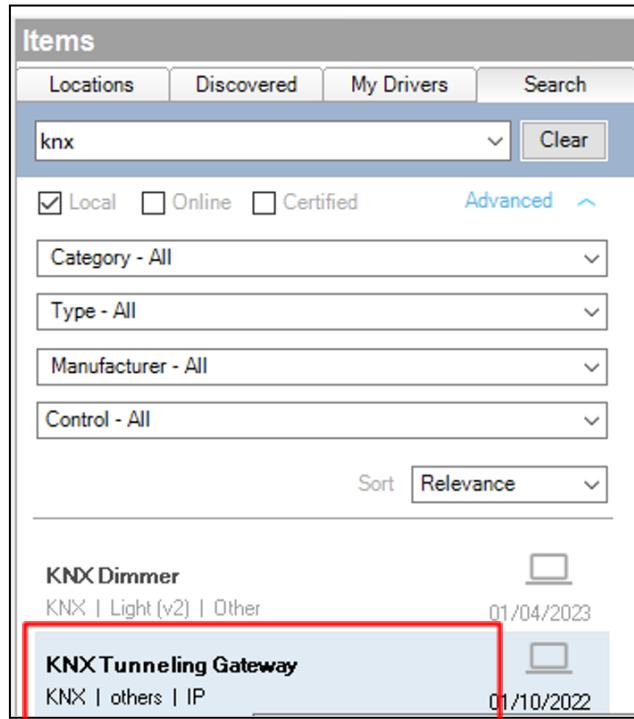


Finally, take note of the IP address of Konnect4 for next steps.

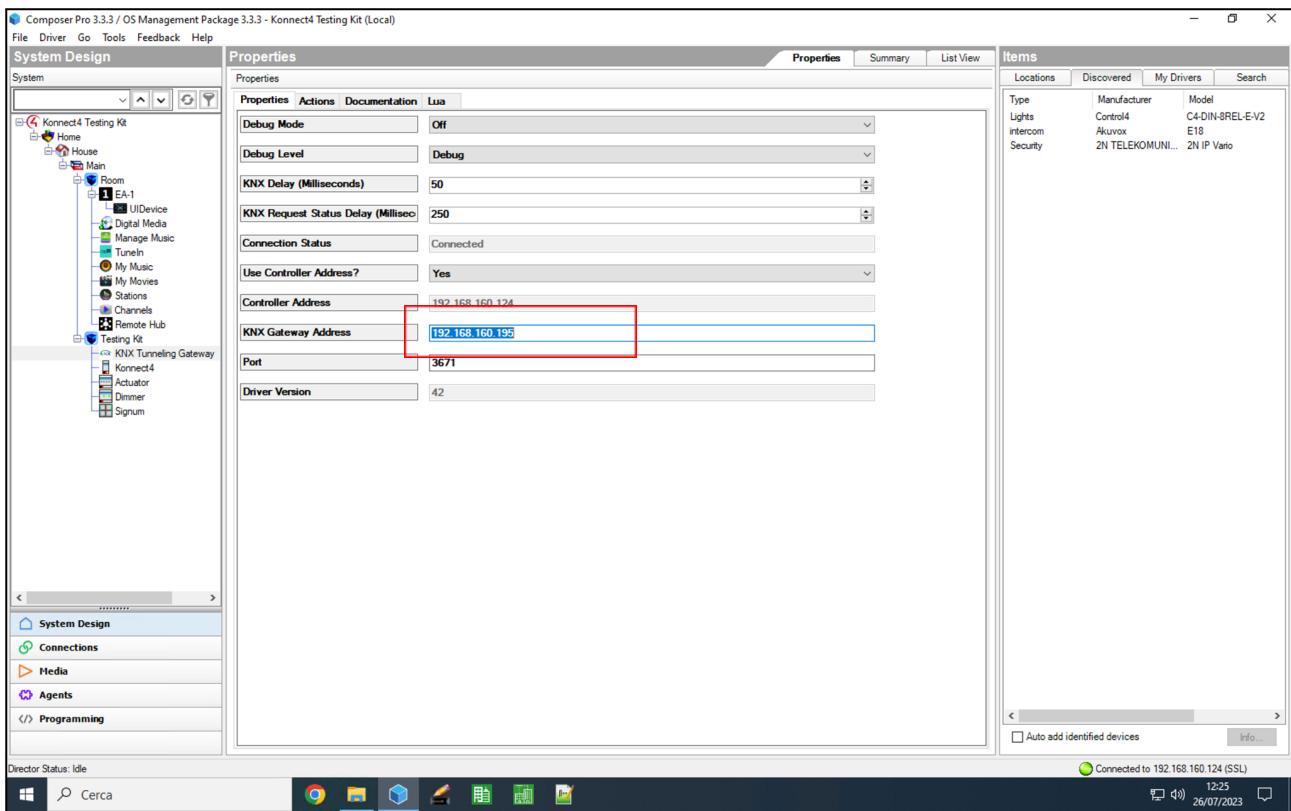
1.3 KNX COMMUNICATION SETUP

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:

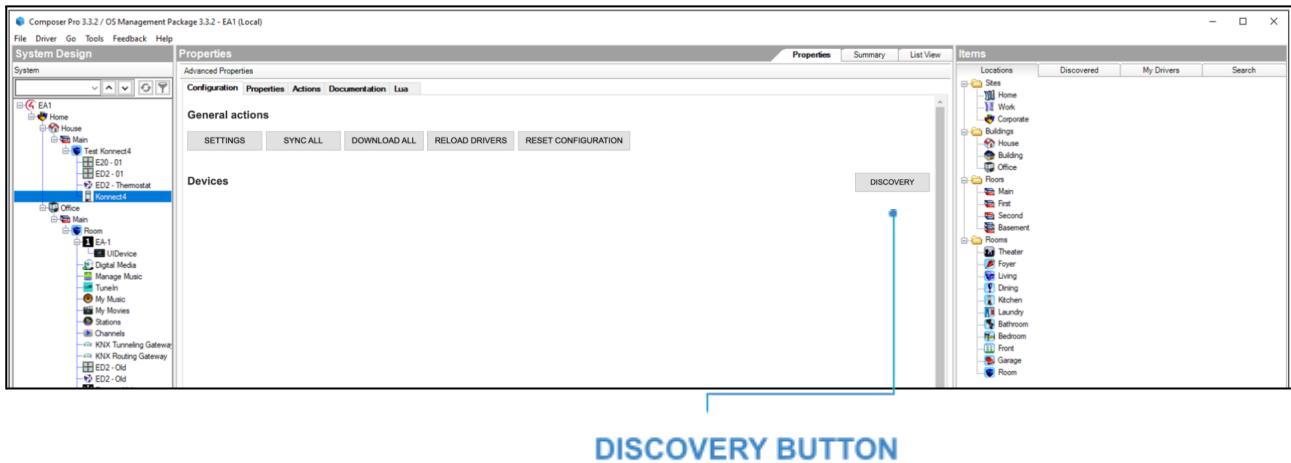


2 DEVICES SETUP

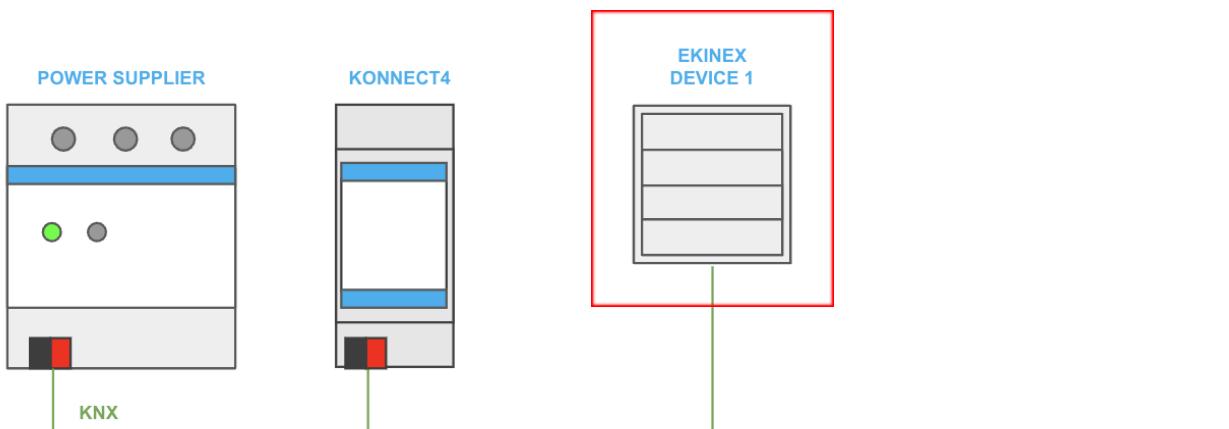
2.1 ADDRESSING

DISCOVERY

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



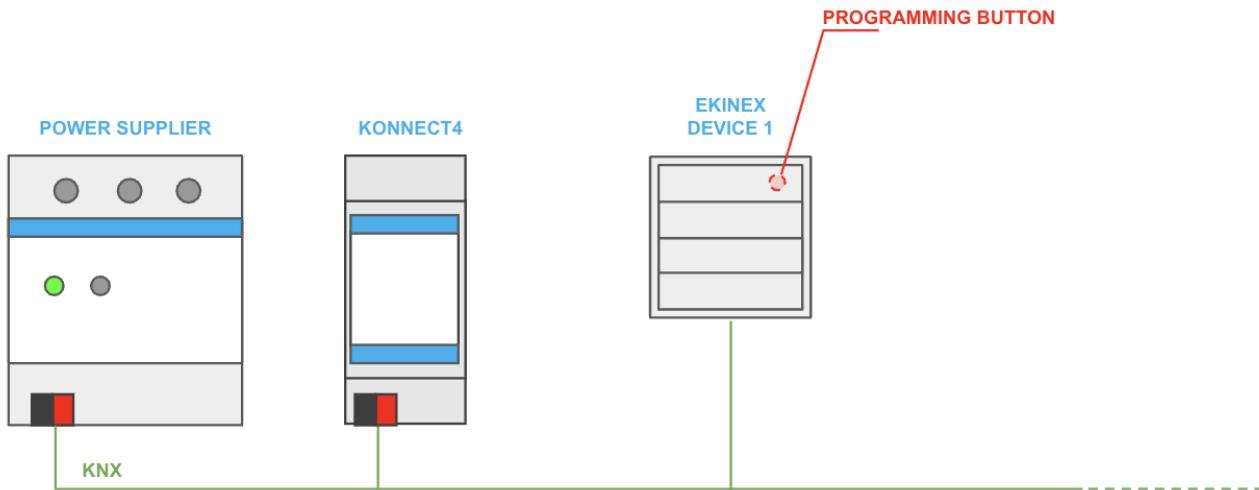
Press the **DISCOVERY BUTTON**, and connect (with a KNX certified cable) the first device to the same bus where the power unit and KONNECT4 are already connected:



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	
	Device 2	Pushbutton	EK-ED2-TP	2	1.1.2	

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	
	Device 2	Pushbutton	EK-ED2-TP	2	1.1.2	

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
- 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

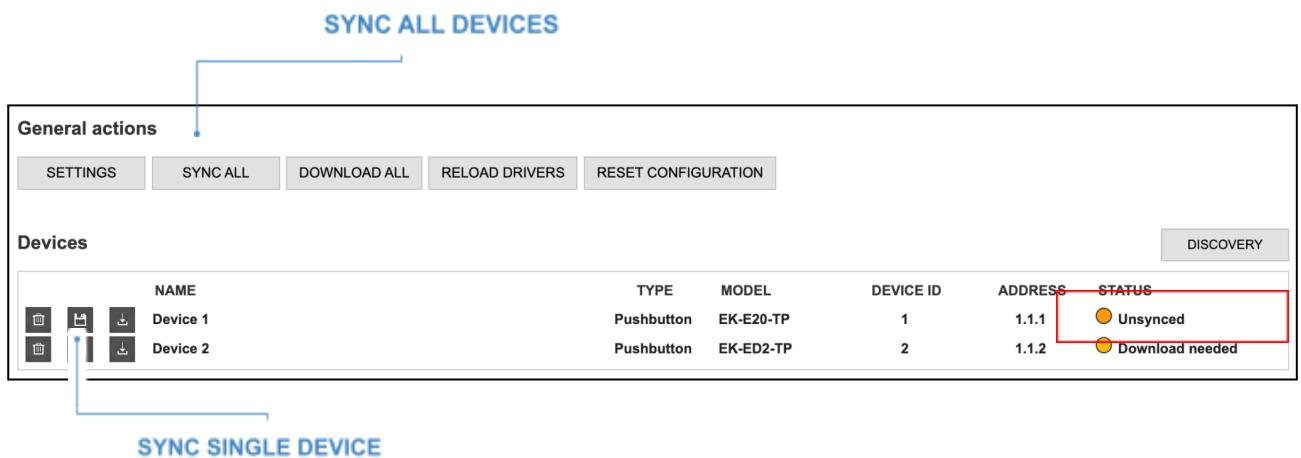
To duplicate the behavior of a device into another, enter the ACTIONS tab of the KONNECT4 driver and press COPY DRIVER CONFIGURATION BY ID, by entering the ID of the source device, and one or more (comma separated) IDS of the devices which must get the same configuration.

2.4 SYNC & DOWNLOAD

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

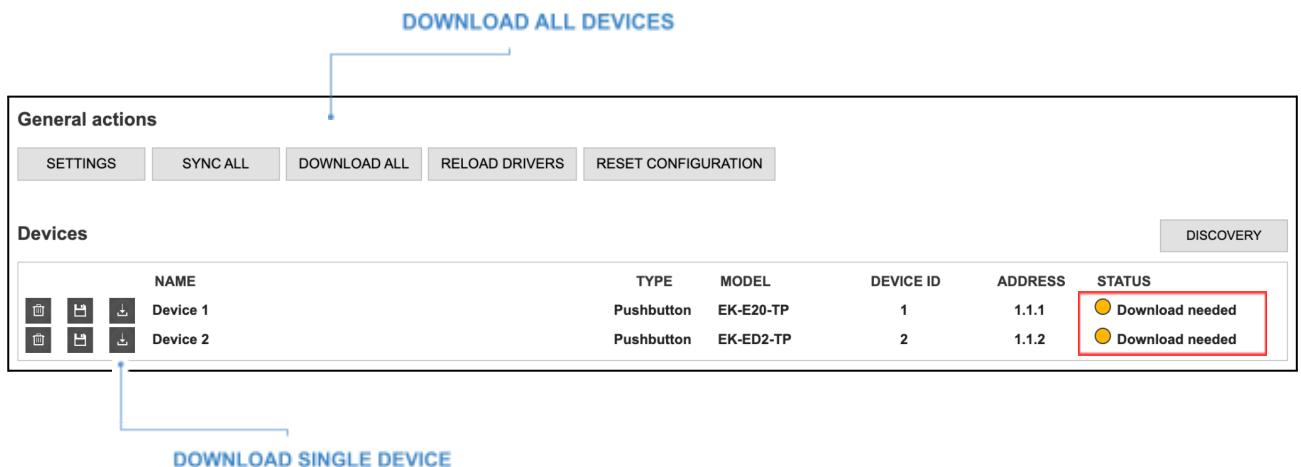
To do so:

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



When done:

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



In case of DOWNLOAD ERROR...

General actions

SETTINGS **SYNC ALL** **DOWNLOAD ALL** **RELOAD DRIVERS** **RESET CONFIGURATION**

Devices

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

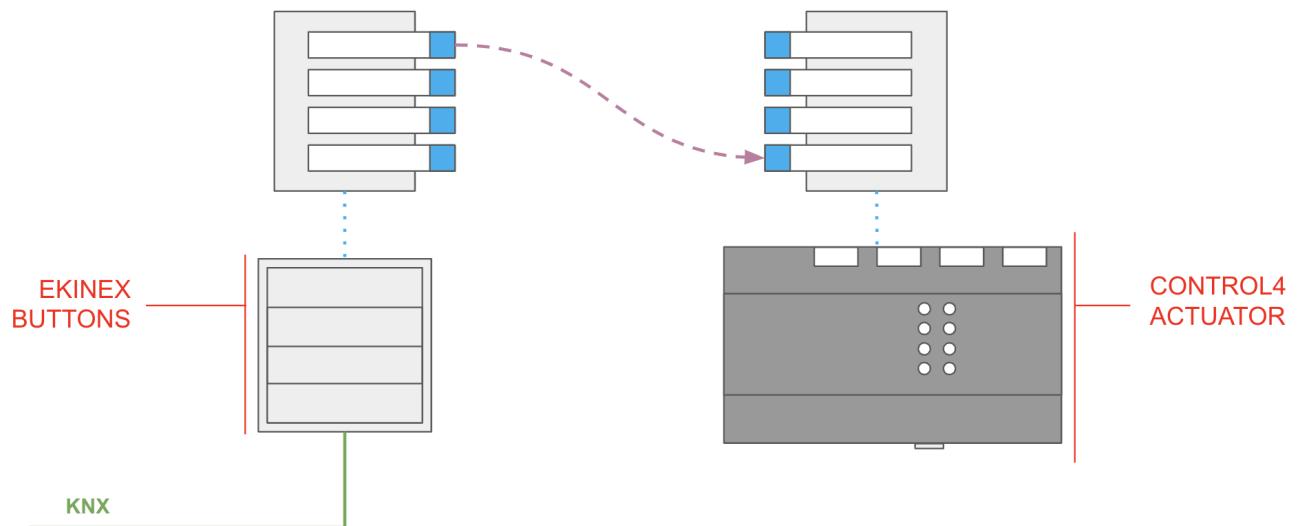
DISCOVERY

... 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.

3.1 BUTTONS CONFIGURATION

LAYOUT

Select the most appropriate layout with the BUTTONS LAYOUT drop-down menu, according to the front covers you will install.

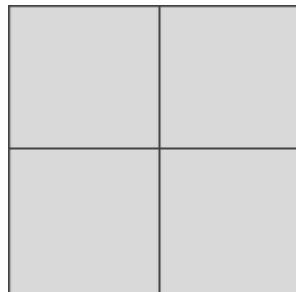
Available layouts for SERIE FF:



2 RECTANGULAR
ROCKERS



4 RECTANGULAR
ROCKERS



4 SQUARE
ROCKERS

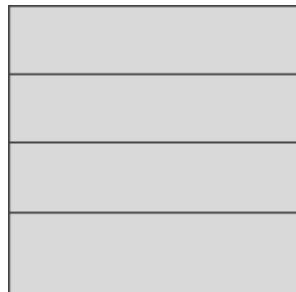
Available layouts for SERIE 71:



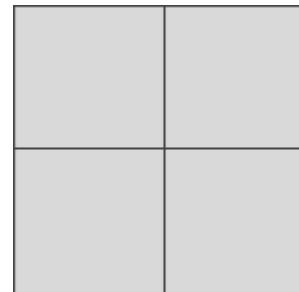
SINGLE
ROCKER



2 RECTANGULAR
ROCKERS

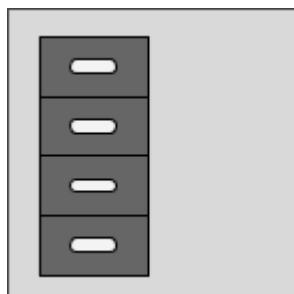


4 RECTANGULAR
ROCKERS

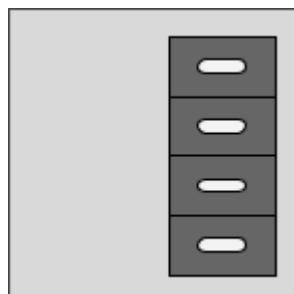


4 SQUARE
ROCKERS

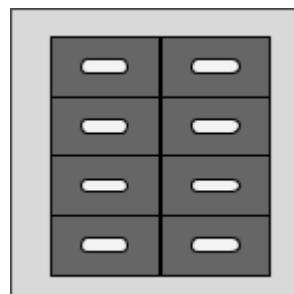
Available layouts for SERIE 20VENTI:



4 BUTTONS
LEFT SIDE



4 BUTTONS
RIGHT SIDE



8 BUTTONS

BUTTON BEHAVIOR

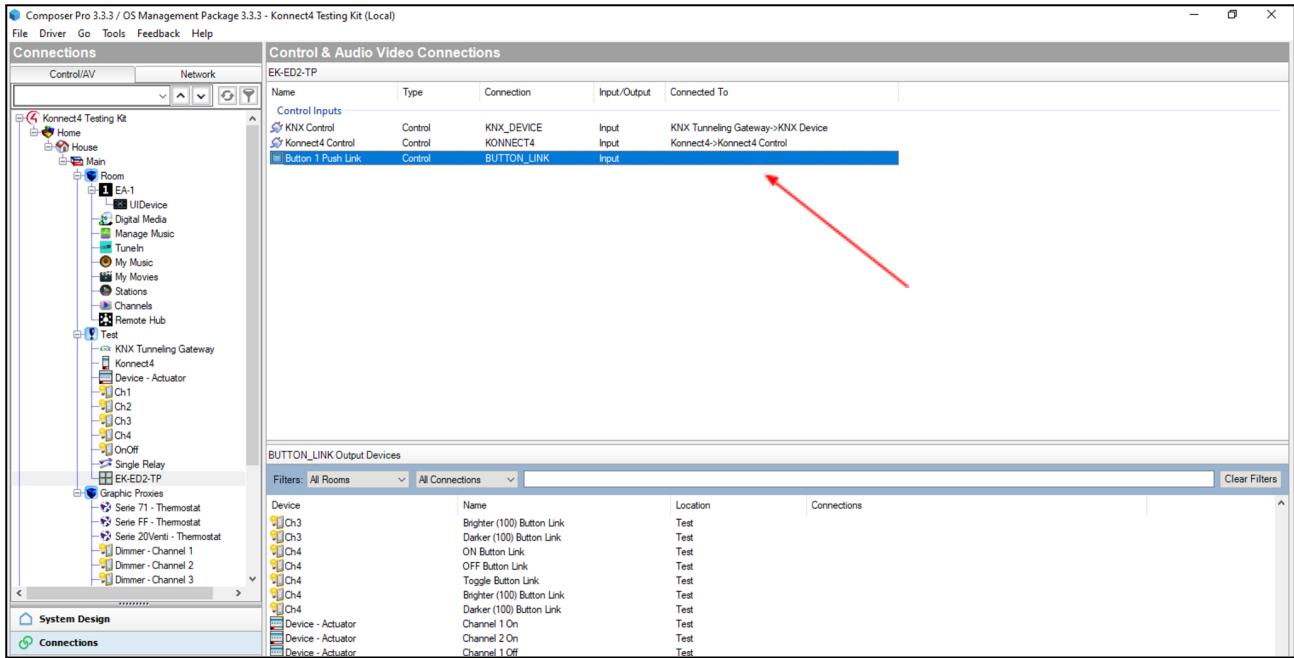
PROPERTIES

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

MODE	Select one of the following options:							
		<table border="1"><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 border="1"><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>	DISABLED	ON/OFF lights switching Relay command	ENABLED	Dimmer lights control Shutters / blinds control		
DISABLED	ON/OFF lights switching Relay command							
ENABLED	Dimmer lights control Shutters / blinds control							
If enabled, the following sub-property is shown:								
		<table border="1"><tr><td>CLICK DELAY</td><td>Minimum time for a press to be considered as long press</td></tr></table>	CLICK DELAY	Minimum time for a press to be considered as long press				
CLICK DELAY	Minimum time for a press to be considered as long press							

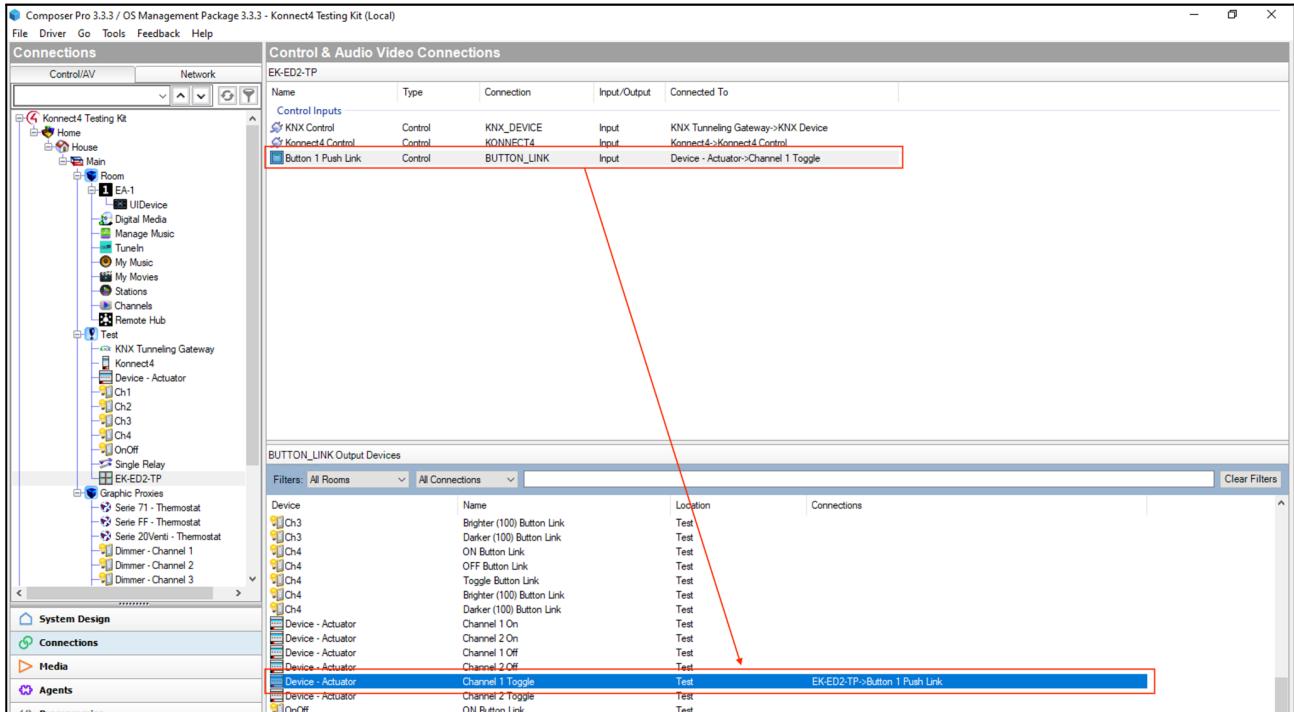
CONNECTIONS

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:

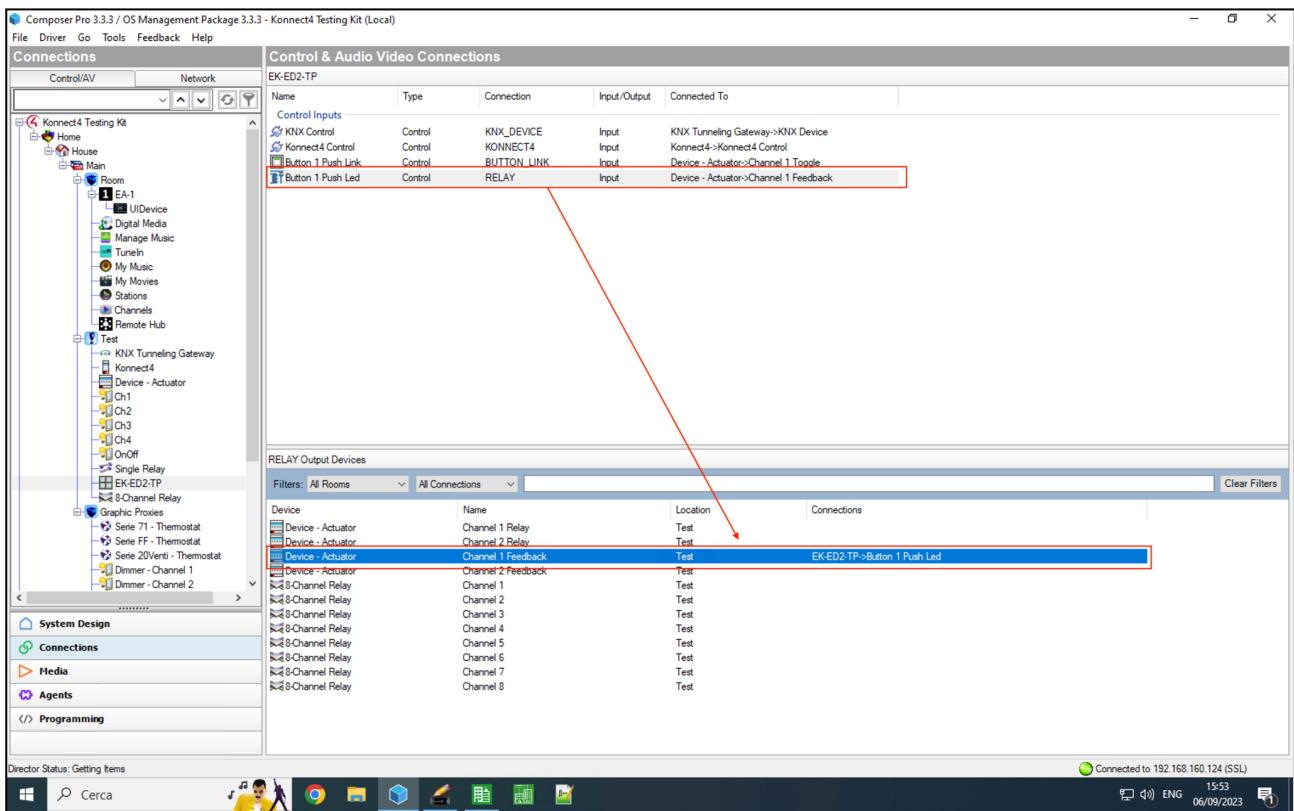
LED	Select ENABLED to manage the LED associated to the button	
LED BEHAVIOR	Select one of the following options:	
	FOLLOW BUTTON STATE	The LED switches ON when the button is pressed, and OFF when released
	FOLLOW CONNECTION	The LED switches ON and OFF according to the value received on the RELAY connection
	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)
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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:

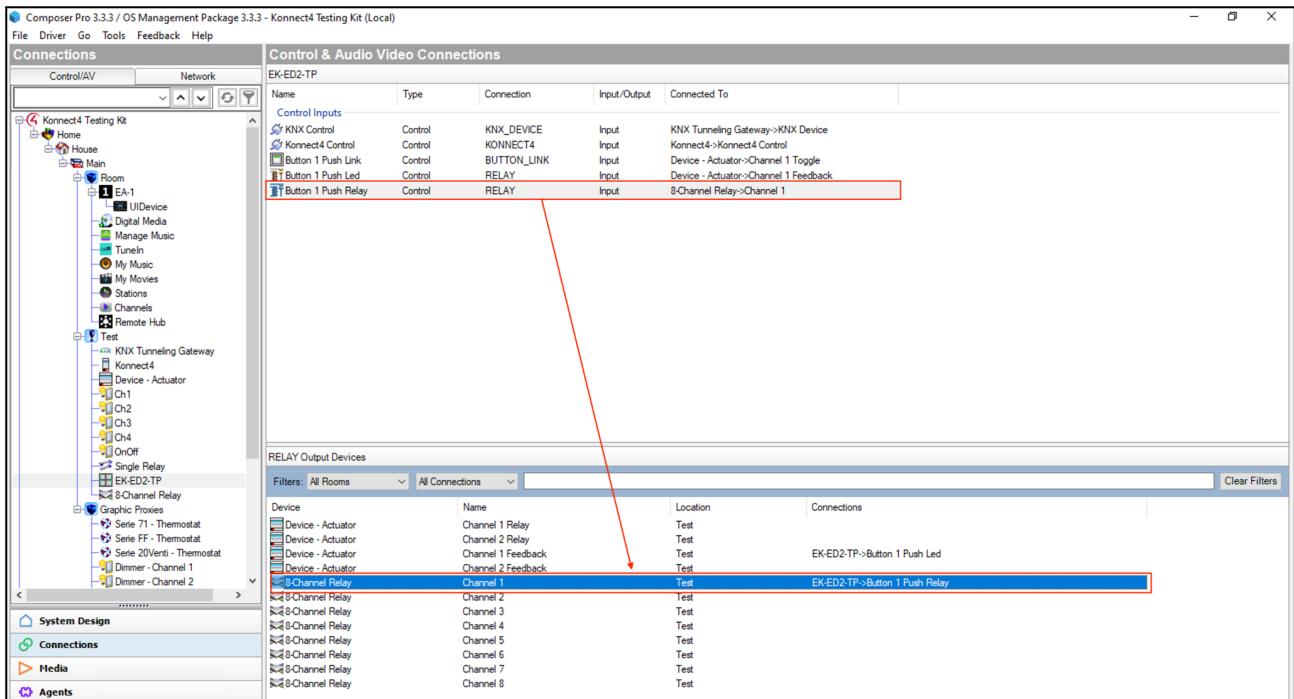


This connection is of type RELAY, that means it can be directly connected to third-party drivers expecting to switch ON/OFF a light (or similar). Example of configuration in combination with a Control4 switch actuator:

RELAY ADDITIONAL CONNECTION

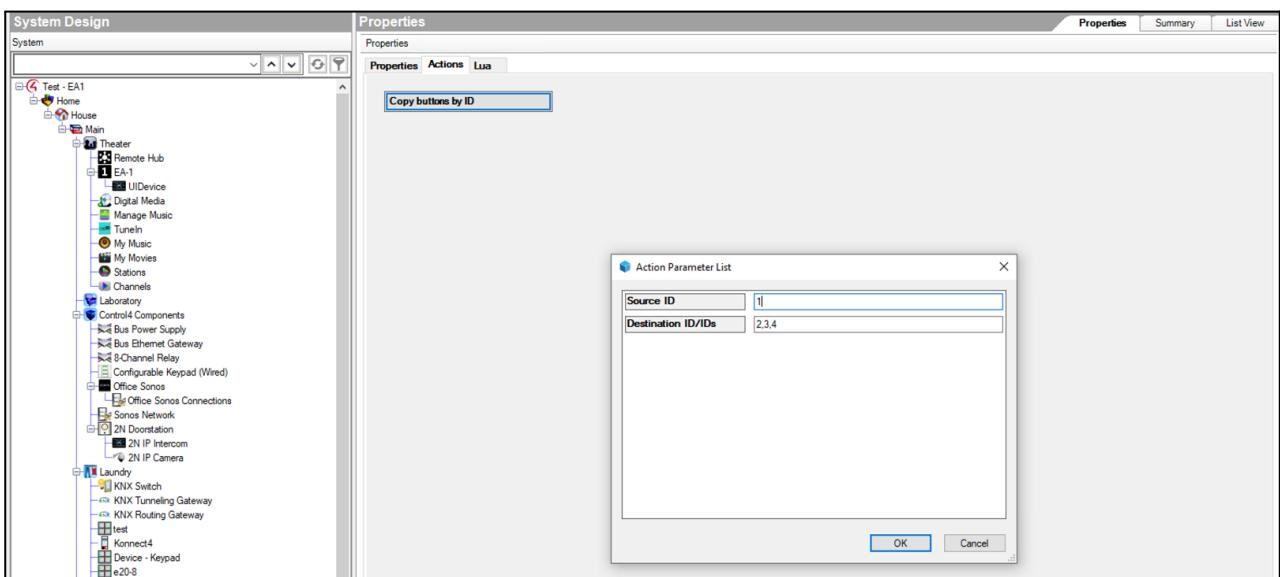
In the BUTTONS CONFIGURATION section it is possible to enable an additional connection of type RELAY, and set its behavior with the ENABLE RELAY CONNECTION property.

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:



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:

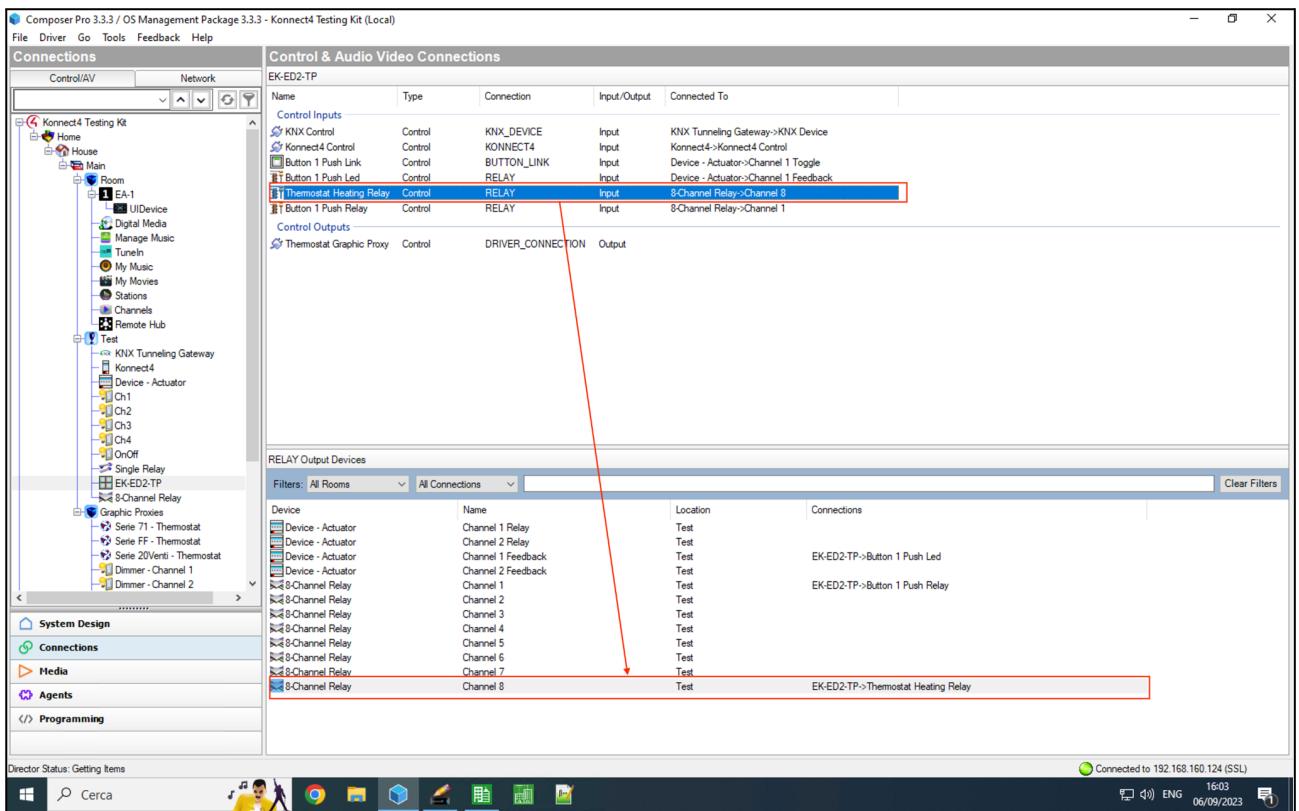
VENTILATION CONTROL TYPE	Select the preferred control strategy for the ventilation
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For a detailed list of all available properties for the thermostat, please refer to KONNECT4 USER MANUAL

CONNECTIONS

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

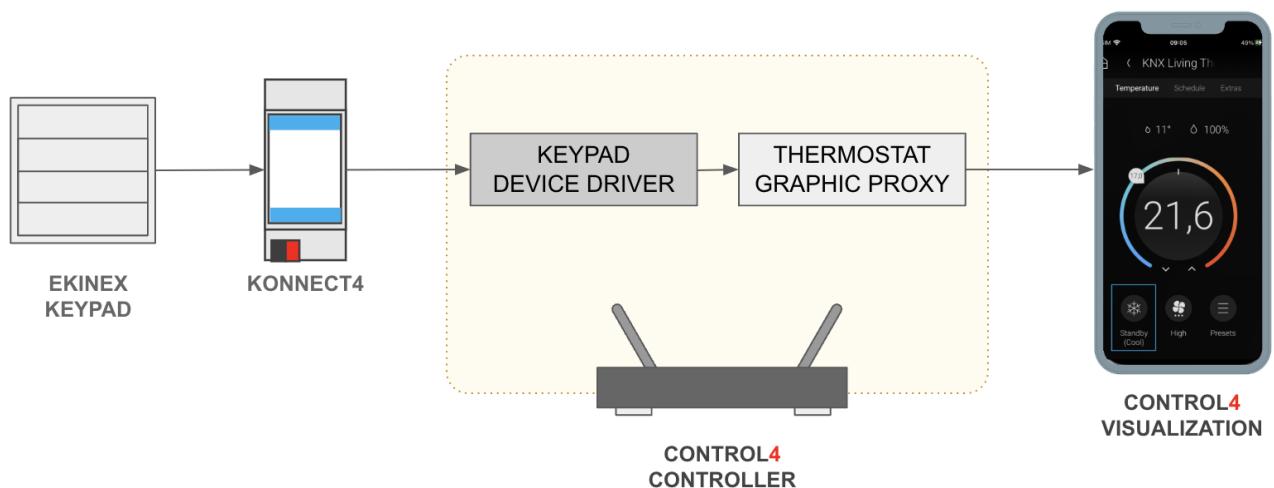


Connect it to the switch actuator to command ON/OFF the heating / cooling system, like in the previous sample screenshot.

4 GRAPHIC PROXIES

4.1 THERMOSTAT

In EASY MODE, the KEYPAD DEVICE DRIVER takes control of the HVAC regulator integrated into the devices; in order to handle it in the visualization, the THERMOSTAT GRAPHIC PROXY driver must be added to the project, and connected with the DRIVER_CONNECTION:

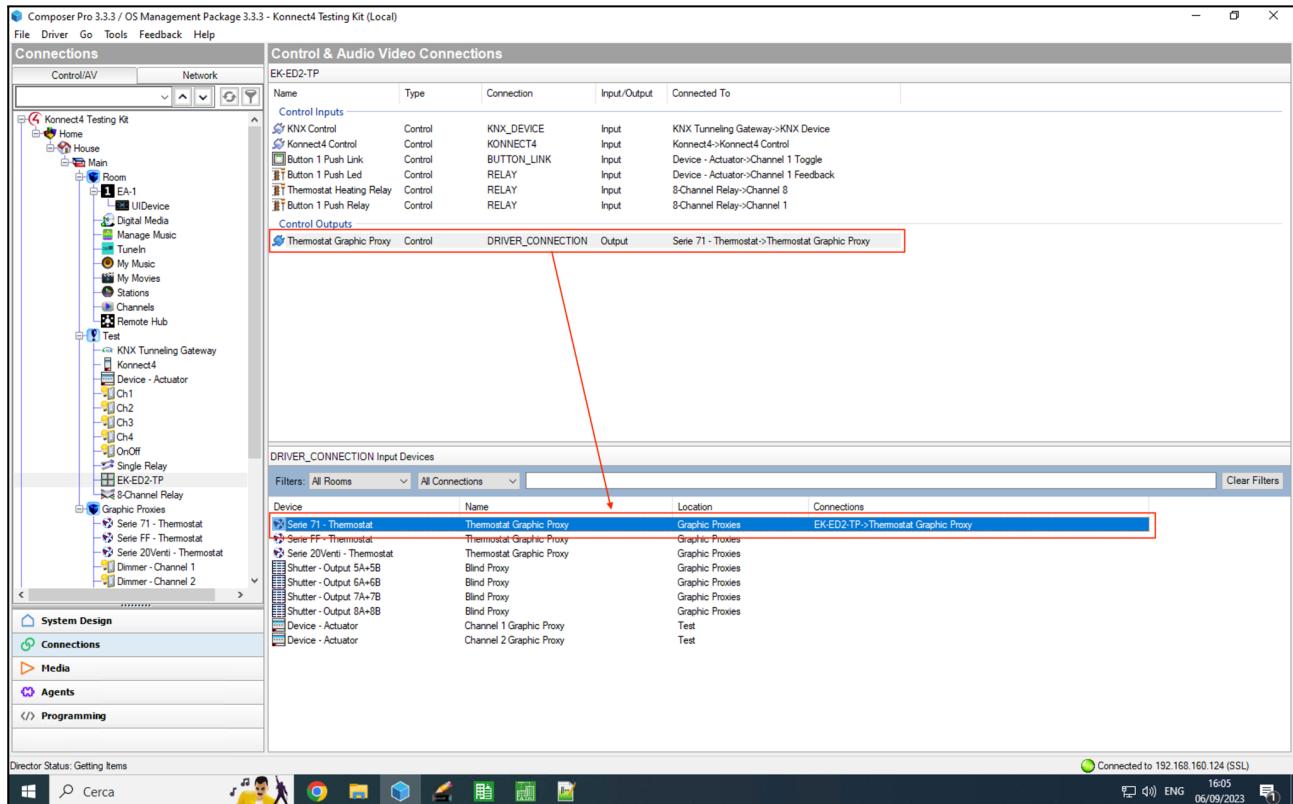


Examples of thermostat visualization:



To do so:

- Search for the THERMOSTAT GRAPHIC PROXY in the drivers SEARCH and add it to the project
- Open the DEVICE DRIVER of the keypad
- Switch to the CONNECTIONS view of COMPOSER PRO
- 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

REVISIONS

DATE	REF	NOTES
2023-09-05	EKINEX.KONNECT4.TUTORIAL.EN.001	First document release