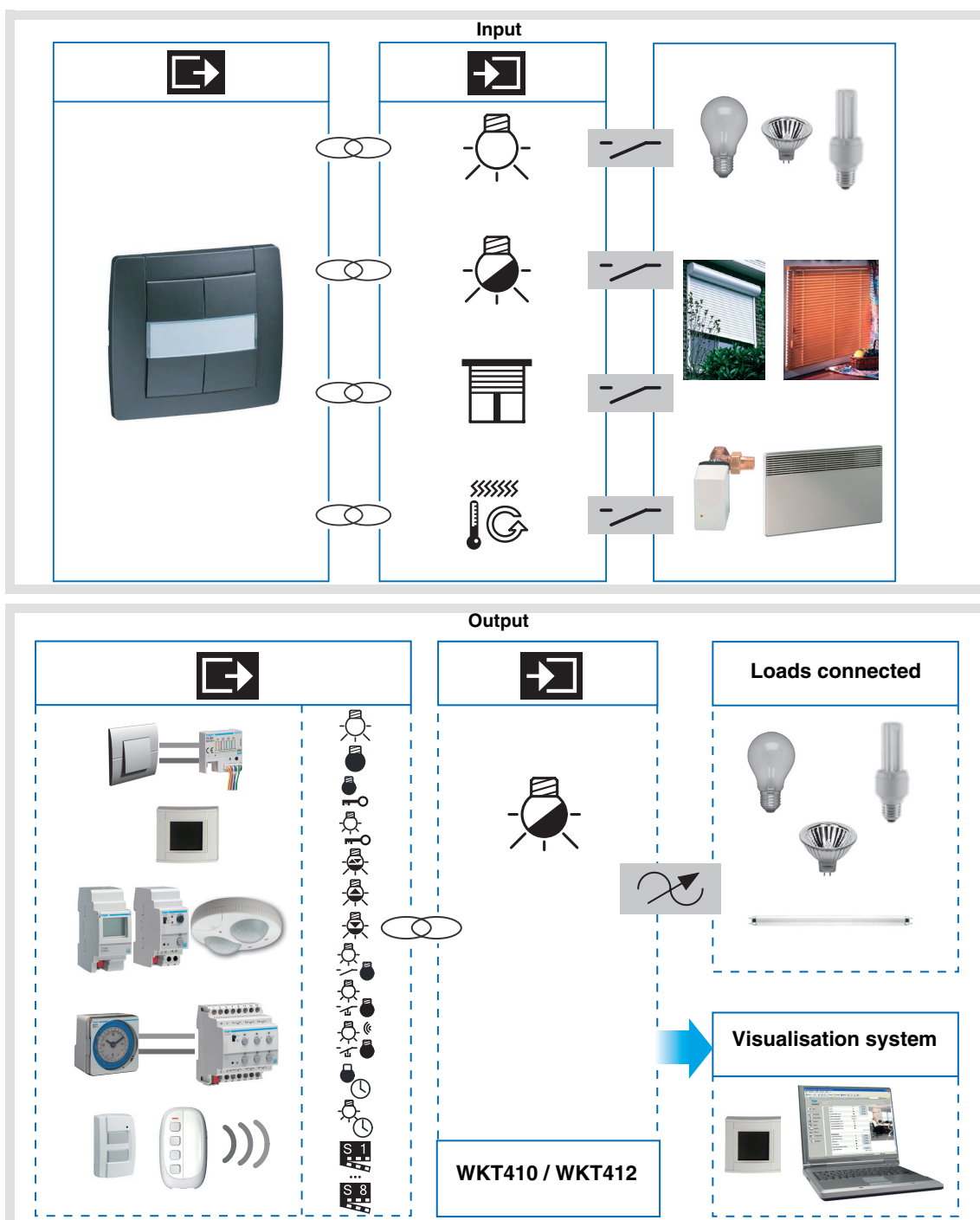


Tebis TX100 Configurator



quicklink[®] radio dimmer input/output products
Electrical / Mechanical characteristics: see product information

	Product reference	Product designation	TX100 version	TP device
	WKT410	Wiring accessories dimmer	≥ 2.5.1	RF device
	WKT412	Wiring accessories dimmer with repetition	≥ 2.5.1	



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1. Presentation

1.1 General points

All the radio emitters / receivers referred to in this document are quicklink  RF devices. They can be recognised by the configuration **cfg** push button with which they are all equipped. Quicklink  indicates the configuration without tools mode.

These products can also be configured to E mode by the TX100 or in S mode by ETS via the media coupler TR131.

In this case, the version of the TR131 must fulfill the following characteristics:

Firmware: $\geq 1.2.5$

Plug in: $\geq 1.0.11$

This document describes the configuration principle with the TX100 tool and the functions available in this mode.

Within the same installation, a single configuration mode may be used.

To reuse with TX100, a product that has already been programmed in another installation whatever the initial configuration (quicklink , TX100 or ETS), it is necessary to carry out a factory reset on the device.

For the combined input / output products, the factory reset will reinstall the local commands (the input of the product controls the load connected with the product). To associate a different function to these inputs with the TX100, the local control link must first be deleted (select the input and output numbers for the product and delete the link).

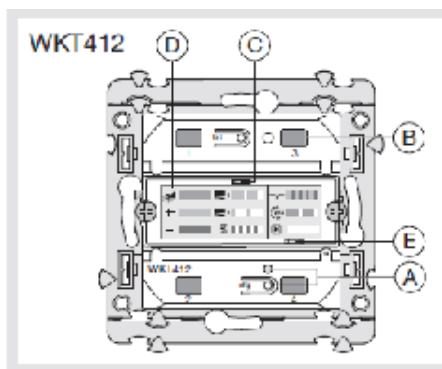
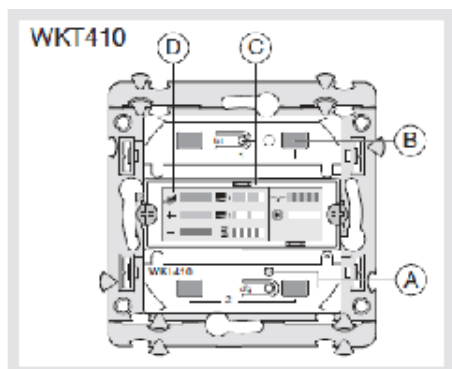
Specifics of the quicklink radio emitters / receivers:

All the dimming emitters / receivers are functional when delivered (pre-configured). The product inputs control its output for the most commonly used function (1-button dimmer control). To use the inputs with a different function, simply delete the existing link using the TX100 before reprogramming this input.

1.2 Function Description

The TX100 enables reconfiguring:

- The 2 push buttons of WKT410,
- The push button 3 of WKT412.



- A  Button and LED configuration **cfg**
 - B  Push button 1 and 2 (WKT410), 1 - 4 (WKT412)
 - C  Button and LED function **fct**
 - D  Functions label
 - E  Orange memo LED (WKT412)
- Reception function 

1.2.1 Inputs

The radio transmitters enable commands to be transmitted for lighting, shutters and blinds, heating / air-conditioning, and scenes.

■ Emission of commands

The following functions can be associated with the emitters:

- Lighting control
 - Toggle switch, ON, OFF, ON / OFF, Timer
 - 1 button or 2 button dimmer
- Shutters / Blinds control
 - Up, Down, Stop, Slat angle
- Heating / Air-Conditioning control
 - Comfort, Standby, Night set-point, Frost protection
- Scene controls

1.2.2 Outputs

The main functions of the dimming lighting application are as follows:

■ Function ON / OFF

The ON / OFF function is used to switch a lighting circuit ON or OFF:

ON: switching on at the last level memorised.

OFF: switching OFF.

The control can come from push buttons.

■ Dimming

The dimming enables the level of lighting to be increased or decreased progressively by a long key-press on the push button.

■ Timer

The Timer function is used to switch a lighting circuit ON or OFF for an adjustable time. Depending on the operation mode selected, the output may be delayed for ON or OFF switching.

■ Priority

The Priority function enables the output to be forced to 100% ON or OFF. This command has the highest priority. No other command is taken into account if a priority is active. Only a priority end command re-enables the other commands.

Application: maintaining lighting ON for safety reasons.

■ Scene

The Scene function groups a set of outputs. These outputs can be set to an adjustable predefined status.

Pressing a single push button activates a scene.

Each output may be integrated into 8 different scenes.

■ Repetition

The Repetition function enables the user to activate the repetition control, which can be associated with any emitter. This function is available on emitters/receivers WKT412.

■ Status indication

The Status indication function displays the status of the output contact.

2. Configuration and settings

2.1 Configuration

These functions are available in the TX100's Standard configuration mode by creating links with the appropriate output devices. The radio emitters / receivers always function in bidirectional mode.

■ Configuration principle

→ Programming the product

- Go to Prog mode and do a long key-press on the  button of TX100 to launch the products tutorial for the installation.

→ To number the radio inputs:

- Check that configuration mode is still active on your transmitter and press the cfg button again if not,
- Go to the Num numbering menu → Inputs → ✓ ,
- Press on the input key to be numbered. A beep will sound when the input is detected, the configurator will automatically allocate a number to it,
- Proceed the same way for the other inputs.

→ To allocate a function to an input key:

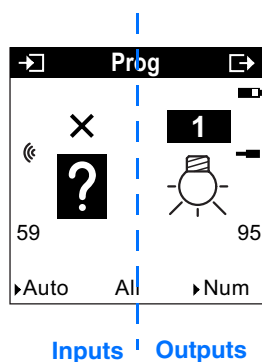
- Go to the Num numbering menu,
- Select the number of the input key required,
- Press ,
- Select the function and validate using .

2.2 On / Off Lighting functions

The ON / OFF Lighting functions command the ON / OFF Lighting outputs symbolized by the  icon on the right part of the display.

Refer to the configuration instructions of the various lighting output products for the installation and configuration of these products.

After numbering, the functions and the links appear on the left side of the screen of the TX100.



The  symbol indicates that it is a radio input. To select the functions, switch to the numbering mode.

The table here after shows all type of links compatible with the product:

Possible link type		Link description	Output operation
	ON	The ON function switches the lighting circuit ON.	Press on the push button → Closing of the output contact Pressing repeatedly keeps the output contact closed.
	OFF	The OFF function switches the lighting circuit OFF.	Press on the push button → Opening of the output contact Pressing repeatedly keeps the output contact open.
	Toggle switch*	The Toggle switch function allows inverting the status of the lighting circuit.	Press on the push button → Status change of the output contact Pressing repeatedly inverts the status of the output contact each time.
	Switch	The Switch function switches the lighting circuit ON or OFF.	Press on the push button → Closing of the output contact Releasing the push button → Opening of the output contact
	Timer ON	The Timer ON function switches the lighting circuit ON for an adjustable time. Select the time delay after confirming the link: Setting range [0 s - 24 h] Not active, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.	Short (<1 s) push button press → Delayed closing of the output contact Interruption of the time delay: Prolonged press (>1 s) on the push button → Current time delay is stopped and the output contact opens (OFF) Increase of the duration of the delay time: Timer commands repeated n times during the first ten seconds after the beginning of the time delay multiply the duration of the time delay by n times the value of the Timer parameter. Restart of the timer: A command given 10 sec after the beginning of the time delay restarts the timer only once.
	Timer OFF	The Timer OFF function switches the lighting circuit off for an adjustable time. Select the time delay after confirming the link: Setting range [0 s - 24 h] Not active, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.	Short (<1 s) push button press → Delayed switching OFF of the light Interruption of the time delay: Prolonged press (>1 s) on the push button → Time delay stopped while in progress and closure of the output contact (ON) Timer commands repeated n times during the first ten seconds after the beginning of the time delay multiply the duration of the time delay by n times the value of the Timer parameter. Restart of the timer: A command given 10 sec after the beginning of the time delay restarts the timer only once.

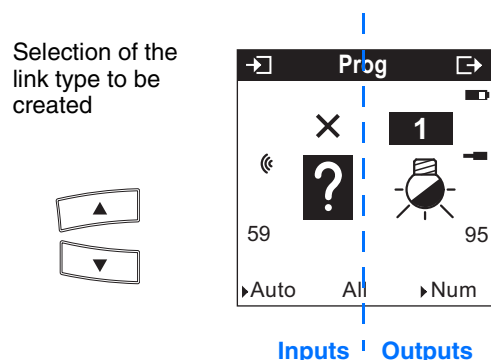
* Remark: For normal operation, the radio transmitters operate in a one-direction mode. They momentarily switch to two-way mode each time a "remote control switch" type command is made in order to ensure the output status is inverted.

2.3 Dimmer Lighting functions

The dimmer Lighting functions command the dimmer Lighting output symbolized by the  icon on the right part of the display.

Refer to the configuration manuals for the various dimmer Lighting output devices for information on installing and configuring these devices.

After numbering the push buttons, the functions and the links available appear in the left-hand part of the TX100 screen.



The  symbol indicates that it is a radio input. To select the functions, switch to the numbering mode.

The table here after shows all type of links compatible with the product:

Possible link type		Link description	Output operation
	ON	The ON function switches the lighting circuit ON.	Press on the push button → the light switches ON at the last level stored Pressing repeatedly keeps the light on the last level stored.
	OFF	The OFF function switches the lighting circuit OFF.	Press on the push button → Switching OFF the light at 0% Pressing repeatedly keeps the light off.
	Toggle switch*	The Toggle switch function allows inverting the status of the lighting circuit.	Press on the push button → Toggle between switching ON at the last level stored and switching OFF at 0% Pressing repeatedly inverts the status of the output contact each time.
	1 push button dimmer*	The 1-push button Dimmer function allows dimming the light with one single push button.	Short press on the push button → Toggle between switching ON at the last level stored and switching OFF at 0% Long press on the push button → Increase or reduction of the lighting level
	2 push buttons dimmer: Increase	The Increase Function allows increasing the output level.	Short press on the push button → the light switches ON at the last level stored Long press on the push button → Increase of the lighting level
	2 push buttons dimmer: Decrease	The Reduction function allows decreasing the output level.	Short press on the push button → Switching OFF of the light Long press on the push button → Reduction of the lighting level
	Switch	The Switch function switches the lighting circuit ON or OFF.	Press on the push button → the light switches ON at the last level stored Releasing the push button → Switching OFF the light at 0%

Possible link type	Link description	Output operation
	Timer ON The Timer ON function switches the lighting circuit ON for an adjustable time. Select the time delay after confirming the link: Setting range [0 s - 24 h] Not active, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.	Short (<1 s) push button press → Lighting comes on for an adjustable time(at last level stored). Interruption of the time delay: Prolonged press (>1 s) on the push button → Stop of the current delay and switching OFF at 0% (OFF)
	Timer OFF The Timer OFF function switches the lighting circuit off for an adjustable time. Select the time delay after confirming the link: Setting range [0 s - 24 h] Not active, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.	Short (<1 s) push button press → Delayed switching OFF of the light Interruption of the time delay: Prolonged press (>1 s) on the push button → Stop of the current delay and switching ON of the light at the last level stored.

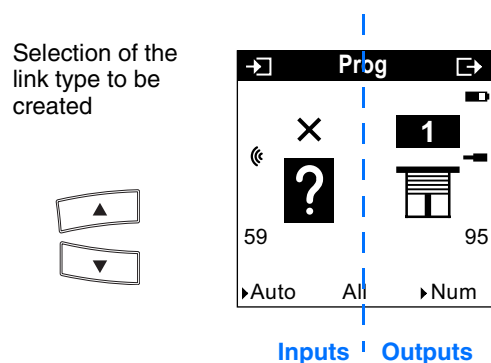
* Remark: For normal operation, the radio transmitters operate in a one-direction mode. They momentarily switch to two-way mode each time a "remote control switch" type command is made in order to ensure the output status is inverted.

2.4 Shutters / Blinds function

The Shutters / Blinds function commands Shutters / Blinds outputs symbolized by the  icon in the right part of the display.

Refer to the configuration manuals for the various Shutters / Blinds output devices for information on installing and configuring these devices.

After numbering the push buttons, the functions and the links available appear in the left-hand part of the TX100 screen.



The  symbol indicates that it is a radio input. To select the functions, switch to the numbering mode.

The table here after shows all type of links compatible with the product:

Possible link type	Link description	Output operation
	Up / Stop	The Up / Stop function allows moving up or stopping a shutter or a blind, or inclining the slats of a blind. In Shutters mode**: - Press on the push button → Delayed closing of the Up output contact** (Up function of a shutter or blind). In Blinds mode**: - Short press on the push button → Brief closing of the Up output contact (Blind slat angle function), - Long press on the push button → Delayed closing of the Up output contact (Up function of a shutter or blind). If a time delay is running, a short press on the push button → Opening of the contact (Stop function).
	Down / Stop	The Down function allows moving down or stopping a shutter or a blind, or inclining the slats of a blind. In Shutters mode**: - Press on the push button → Delayed closing of the Down output contact** (Down function of a shutter or a blind). In Blinds mode**: - Short press on the push button → Short closing of the output contact Down (Blind slat angle function), - Long press on the push button → Delayed closing of the Down output contact (Down function of a shutter or a blind). If a time delay is running, a short press on the push button → Opening of the contact (Stop function).
	Up / Down / Stop*	Only the Shutter mode functions are active. The blind Slat angle function is not accessible. Repeated key press → Rolling shutter mode type operation according to the Up cycle (delayed closure of the Up output), Stop cycle (opening of the output contacts) and Down cycle (delayed closure of the Down output)**.

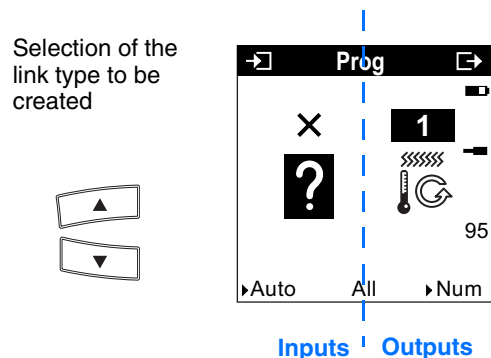
* Remark: For normal operation, the radio transmitters operate in a one-direction mode. They switch momentarily to two-way mode each time a status inversion command is made in order to inquire of the actual status of the shutter and thus ensure inversion of the output status.

** The modes and delay durations are parameterisable (see TX100 configuration manual for the Shutter / Blind output products).

2.5 Heating / Air-Conditioning function

The Heating / Air-Conditioning functions command a thermostat or a regulator symbolized by the  icon on the right part of the display.

Refer to the thermostat, ambiance controller and regulator configuration manuals for information on installing and configuring these devices.



The  symbol indicates that it is a radio input. To select the functions, switch to the numbering mode.

The table here after shows all type of links compatible with the product:

Possible link type	Link description	Output operation
	Override in comfort mode The function "Override in comfort mode" activates the Comfort mode.	Press on the push button → Comfort mode activation The effect of this command is cancelled by any other mode activation command.
	Override in Economy mode The function "Override in economy mode" activates the economy mode.	Press on the push button → Reduced mode activation The effect of this command is cancelled by any other mode activation command.
	Standby override The Standby override function is used to activate Standby mode.	Closing the input contact causes Standby mode to be activated. The effect of this command is cancelled by any other mode activation command.
	Frost protection override The Frost protection override function is used to activate the Frost protection function in the case of heating or the Protection mode in the case of air conditioning.	Closing the input contact causes the Frost protection mode to be activated (Protection in case of air-con). The effect of this command is cancelled by any other mode activation command.
	Auto (Return home) The Auto function cancels the override in progress to return to the set point corresponding to Automatic mode.	Closing the input contact causes Auto mode to be activated. The effect of this command is cancelled by any other mode activation command.

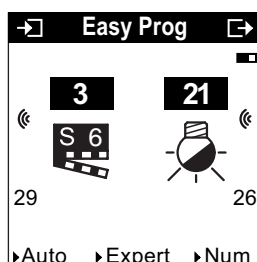
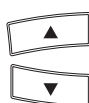
2.6 Scene Functions

■ Link creation

It is possible to create links between a push-button and the outputs which are to be part of the scene by selecting a Scene function (number 1 to 8).
Scene 8 = Repetition

The **Repetition** function enables the user to save the commands received successively over a period of 24 h. Once saved, the user can activate this function to have the sequence of stored commands repeated automatically, every 24 h period.
The command is sent by the object **Scene**. The recording of the daily sequence is activated or deactivated directly on the output module. To activate the **Repetition** function, link the scene number 8 from the emitter to the receiver object **Scene or Repetition**.

Selection of the link type to be created

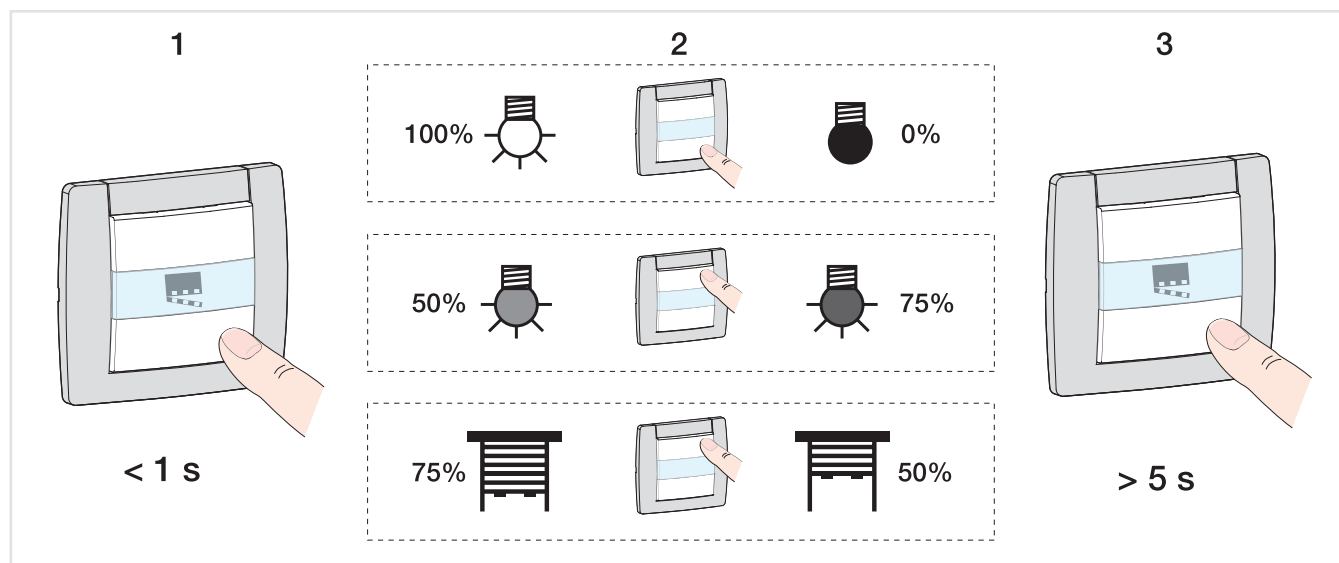


Possible link type	Link description	Output operation
 ... 	Scene 1 to 8 The Scene function groups a set of outputs. These outputs can be set to an adjustable predefined status. Pressing a single push button activates a scene. Each output may be integrated into 8 different scenes.	The status of each output can be defined: • By output settings. • Via learning, with the push buttons on the installation or on the front of certain devices.

■ Learning and memorisation of scenes

This procedure enables a scene to be modified and memorised by locally using the push buttons in the room, on a remote control RF.

- Activate the scene with a short key-press on the transmitter that launches the scene,
- Put the outputs (Lighting, Shutters, Thermostat, etc.) into the desired status using the usual local controls (push button, remote control, etc.),
- Memorise the status of the inputs with a long key-press greater than 5s on the transmitter that launches the scene. The memorisation is indicated by the momentary activation of the outputs.



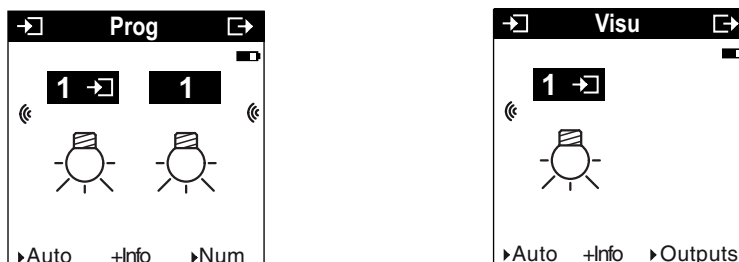
2.7 Repeater Function

It increases the radio range of the system by re-sending the messages received by the product. Inactive by default, the Repeater function can be activated from the Product Management / TX100 Repeater menu.

3. "+ info" and "expert" mode of the TX100

3.1 Mode + Info

The mode +Info can be accessed in the Prog and Visu modes of the TX100. This display mode is active for the installation products until it is deactivated.



The +Info mode allows the status indication to be linked from an output to a viewing product: Area controller, LED output, etc. The status indication sends the current status over the network each time the status changes.

The status indication is represented by the symbol .

The status indication adds itself to the list of inputs on the left of the TX100 screen with the same number as the output.

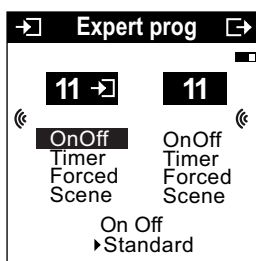
3.2 Expert mode

■ General points

The Expert mode allows:

- Non-configurable KNX products to be integrated by ETS (viewing tool, Internet gateway, domovea) in the installation,
- Specific links, not available in the Standard configuration mode, to be created.

In Expert mode, the functions are displayed through the communication objects used in the configuration ETS mode. The objects appear as a list located under the input and output numbers.



The Expert mode allows links to be established between objects with the same format by giving them the same group address.

■ List of the available objects

On / Off and Dimmer Lighting controls

Designation TX100	Designation ETS	Function	Format	Description
OnOff	On/Off	ON / OFF	EIS1 1 bit	Allows an ON / OFF command to be transmitted.
IOOnOff*	InfoOn/Off	ON / OFF information	EIS1 1 bit	Indicates the output's status.
DimCtrl	DimmingCtrl	Dimming command	1 bit	Allows changing the output level of a dimmer.
Timer	TimedStartstop	Timer	EIS1 1 bit	Allows you to activate or interrupt the timer.

Shutters / Blinds control

Designation TX100	Designation ETS	Function	Format	Description
StepStop	StepStop	Slat angle	1 bit	Sends a slat angle command for a blind.
UpDown	UpDown	Up / Down	1 bit	Sends an Up or Down command for a roller shutter or a blind.
IUpDown	InfoMoveUpDown	Up / Down information	1 bit	Provides the status of the Up / Down output (control 1 BP).
IOOnOff*	Info On/Off	ON / OFF information	EIS1 1 bit	Indicates the output's status.

Heating / Air-Conditioning control

Designation TX100	Designation ETS	Function	Format	Description
HvacMode	HvacMode	Heating mode	1 byte	Activates a heating or air-conditioning mode (Comfort, Reduced, ...).
IOOnOff*	InfoOn/Off	ON / OFF information	EIS1 1 bit	Indicates the output's status.
Timer	TimedStartstop	Timer	EIS1 1 bit	Starts a delayed deviation.

Scene

Designation TX100	Designation ETS	Function	Format	Description
Scene	SceneNumber	Scene	1 byte	Activates the scene by its number.

* In the case of radio products, this object is already linked with object **OnOff**.

4. Restore Factory Configuration function

This function enables the product to be returned to its initial configuration (factory reset). After a device reset, the device can be re-used in a new installation. The factory reset can be performed either directly on the device or via the Product Management / Factory Reset menu of TX100. The latter solution is recommended if the product is part of the installation configured by TX100.

4.1 Factory reset using the TX100

The device belongs to the installation: it appears in the Reset menu's list of devices that can be reset to Factory configuration.

- Select the product in the list,
- Press  and confirm the erasing.

After a device reset, the installation must be learnt again in order to relocate the devices reset to Factory configuration.

4.2 Factory reset on the product

The factory reset can be performed on the product, if the data of the TX100 project has been lost or if the product is not part of the installation.

Factory reset on the product:

- Press and hold the "Cfg" button (> 10 seconds), release the button as soon as the "Cfg" LED starts to flash,
- Wait for the "Cfg" LED to go out, indicating that the factory reset is complete.

To reuse with TX100, a product that has already been programmed in another installation whatever the initial configuration (quicklink , TX100 or ETS), it is necessary to carry out a factory reset on the device.

For the combined input / output products, the factory reset will reinstall the local commands (the input of the product controls the load connected with the product). To associate a different function to these inputs with the TX100, the local control link must first be deleted (select the input and output numbers for the product and delete the link).

5. Characteristics

Product	WKT410	WKT412
Max. number of group addresses	85	86
Max. number of links	91	91

