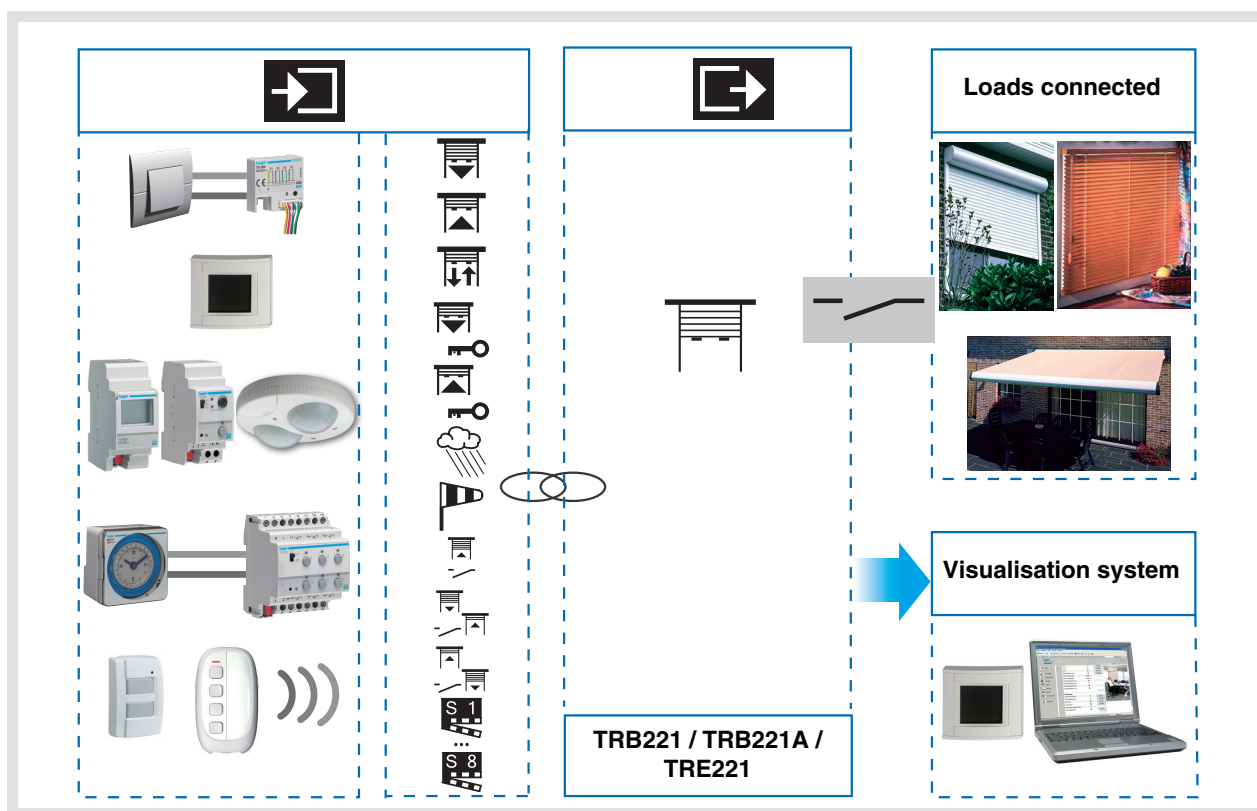# Tebis TX100 Configurator

quicklink radio shutters / blinds outputs
Electrical / Mechanical characteristics: see product information

	Product reference	Product designation	TX100 version	TP device ▬▬ RF device (((
	TRB221/TRB221A	Module 1 output shutters / blinds to be built in	≥ 2.8.0	(((
	TRE221	Module 1 output shutters / blinds, IP55	≥ 2.5.1	

Loads connected

TRB221 / TRB221A / TRE221

Visualisation system

Summary

1. Presentation

1.1 General points

All the radio 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 inital configuration (quicklink🔲, TX100 or ETS), it is necessary to carry out a factory reset on the device.

1.2 Function Description

The application softwares allow each output to be individually configured for Shutter / Blind applications.

The main functions are the following:

■ Up / Down
The Up / Down Function allows moving up or down a shutter, a blind with inclinable slats, an awning, a Venetian blind, etc.
This function also allows opening and closing electric curtains.
The command may come from switches, pushbuttons or automatic controls.

■ Slat angle / Stop
The Slat angle / Stop function allows inclining the slats of a blind or stopping its current movement. This function allows modifying the occultation or the direction of the light beams coming from outside.
The command comed from push buttons: Short key-press on the Up / Down push button.

■ Priority
The Priority function allows forcing a shutter or a blind into a predefined position.
This command has priority, but at a lower level than the alarms. No other command is taken into account if a priority is active.
Only end of priority or alarm commands will be taken into consideration.

■ Alarm 1 (Wind) and Alarm 2 (Rain)
The Alarm functions allow putting a shutter or a blind in a parametrisable predefined status.
These functions have the highest priority. No other command is taken into consideration if an Alarm is active. Only the end of the alarm enables again the other commands.

■ Scene
The Scene function groups a set of outputs. These outputs can be set to an adjustable predefined status.
Pressing a push button activates a scene.
Each output can be integrated in 8 different scenes.

■ Status indication
The 1 Bit status indication function is used to send the last movement of the shutter or blind.

2. Configuration and settings

2.1 Configuration

The allocation and the carrying out of the functions takes place in the standard configuration mode of TX100 by creating links with the suitable input products.
The radio receivers always function in bi-directional mode.

■ Configuration principle

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

After learning, the outputs are represented by the symbol 🔅 in the right of the screen of the TX100.

The function for a product output is defined by the type of link established between the input and output. Each product output can be associated with one input with a particular type of link. The type of link is chosen individually on the input to the left part of the screen of the TX100.

Screen of the TX100:

Selection of the link type to be created

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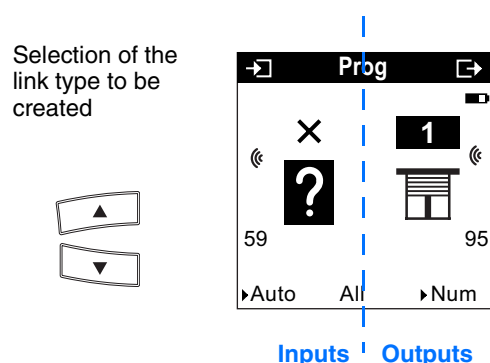
The table here after shows all type of links compatible with the product:

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*: • Closing the input contact with a long key-press on the Up push button ➜ Delayed closing of the Up output contact* In Blinds mode*: • Closing the input contact with a short key-press on the Up push button ➜ Brief closing of the Up output contact • Closing the input contact with a long key-press on the Up push button ➜ Delayed closing of the Up output contact* When a time delay is in progress, closing the input contact with a short key-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*: • Closing the input contact with a long key-press on the Down push button ➜ Delayed closing of the Down output contact* In Blinds mode*: • Closing the input contact with a short key-press on the Down push button ➜ Short closing of the output contact Down • Closing the input contact with a long key-press on the Down push button ➜ Delayed closing of the Down output contact When a time delay is in progress, closing the input contact with a short key-press on the push button ➜ Opening of the contact (Stop function)

Possible link type		Link description	Output operation
	Up / Down / Stop	The Up / Down function allows moving up, down or stopping a shutter or a blind with one single push button.	Closing the input contact by pressing the push button ➜ Shutter mode-type operation according to Up, Stop, Down.
	Down via switch	The Down function enables a rolling shutter or blind to be lowered via a switch.	Closure of the input contact ➜ Delayed closing of the Down output contact* Opening of the input contact ➜ No action
	Up via switch	The Up function enables a rolling shutter or blind to be raised via a switch.	Closure of the input contact ➜ Delayed closing of the Up output contact* Opening of the input contact ➜ No action
	Down / Up via switch	The Down / Up function enables a rolling shutter or blind to be raised or lowered via a switch.	Closure of the input contact ➜ Delayed closing of the Down output contact* Opening of the input contact ➜ Delayed closing of the Up output contact*
	Up / Down via switch	The Up / Down function enables a rolling shutter or blind to be raised or lowered via a switch.	Closure of the input contact ➜ Delayed closing of the Up output contact* Opening of the input contact ➜ Delayed closing of the Down output contact*
	Up priority	The Priority up function forces the Up movement of a shutter or a blind.	Closure of the input contact ➜ Activation of the priority and timed closing of the Up output contact* No other command is taken into account if a priority is active. Only end of priority or alarm commands will be taken into consideration. Opening of the input contact ➜ Priority end The status after the end of the priority is defined by a parameter during programming of the link.**
	Down priority	The Down Priority function forces the Down movement of a shutter or a blind.	Closure of the input contact ➜ Activation of the priority and timed closing of the Down output contact* No other command is taken into account if a priority is active. Only end of priority or alarm commands will be taken into consideration. Opening of the input contact ➜ Priority end The status after the end of the priority is defined by a parameter during programming of the link.**
	Wind alarm	The Rain Alarm function allows placing the shutter or the blind in a defined position when the alarm is activated.	Closure of the input contact ➜ Activation of the Wind alarm: • The position of the shutter or blind is defined by a parameter when programming the link,** • No other command is taken into consideration if an Alarm is active. Only end of alarm commands will be taken into consideration. Opening of the input contact ➜ Alarm end

Possible link type		Link description	Output operation
	Rain alarm	The Rain Alarm function allows placing the shutter or the blind in a defined position when the alarm is activated.	Closure of the input contact → Activation of the Rain alarm: • The position of the shutter or blind is defined by a parameter when programming the link,** • No other command is taken into consideration if an Alarm is active. Only end of alarm commands will be taken into consideration. Opening of the input contact → Alarm end

* The modes and delay durations are parameterisable.
** See additional parameters for priority and alarm.

■ Parameters

A. General parameters
The general parameters are defined in the Product Maintenance / Product information of the TX100 and apply to all the outputs.

Designation	Description	Values
Down Com. length	This parameter is defined during the closing of the contact for a complete down or up movement.	1 s to 20 s in 1 s steps. 20 s to 2 min in 5 s steps. 2 min to 8 min in 15 s steps. Default value: 2 min.
Mode	This parameter enables a shutter or blind function to be selected.	Blind. shutter. Default value: Blind.
Slat angle step	This parameter allows defining the closing time of the contacts to carry out one slat step: 50 ms x multiplier.	multiplier: 3.

B. Additional parameters for priorities and alarms

These parameters are defined during programming links for priorities and alarms.

Linking	Description of the Action parameter	Actions
Up priority	This parameter defines the position of the rolling shutter or blind at the end of the Up priority.	Maintain, Inversion. Default value: Maintain.
Down priority	This parameter defines the position of the rolling shutter or blind at the end of the Down priority.	Maintain, Inversion. Default value: Maintain.
Wind alarm	This parameter defines the position of the rolling shutter or blind when the alarm is active.	Maintain (Not active), Up, Down. Default value: Maintain.
Rain alarm	This parameter defines the position of the rolling shutter or blind when the alarm is active.	Maintain (Not active), Up, Down. Default value: Maintain.

C. Default value

| Parameter	Description	Non-modifiable default value
Time delay for direction inversion	This parameter defines the stopping time of the shutter or blind before reversing the direction of rotation: the 2 output contacts are open.	600 ms
Total number of slat angles	This parameter defines the total number of basic slat angles for the slats to pass from the position angled toward the bottom to the position angled toward the top.	Total number: 12
Position after wind alarm	This parameter defines the position of the rolling shutter or blind after the wind alarm.	Maintains the position
Position after rain alarm	This parameter defines the position of the rolling shutter or blind after the rain alarm.	Maintains the position
Status after download	This parameter defines the position of the rolling shutter or blind after a download.	Maintains the position

2.2 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).

Possible link type		Link description	Output operation
S 1 ... S 8	Scene 1 to 8	The Scene function groups a set of outputs. These outputs can be set to an adjustable predefined status. Pressing a push button activates a scene. Each output can be integrated in 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 sesired 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.
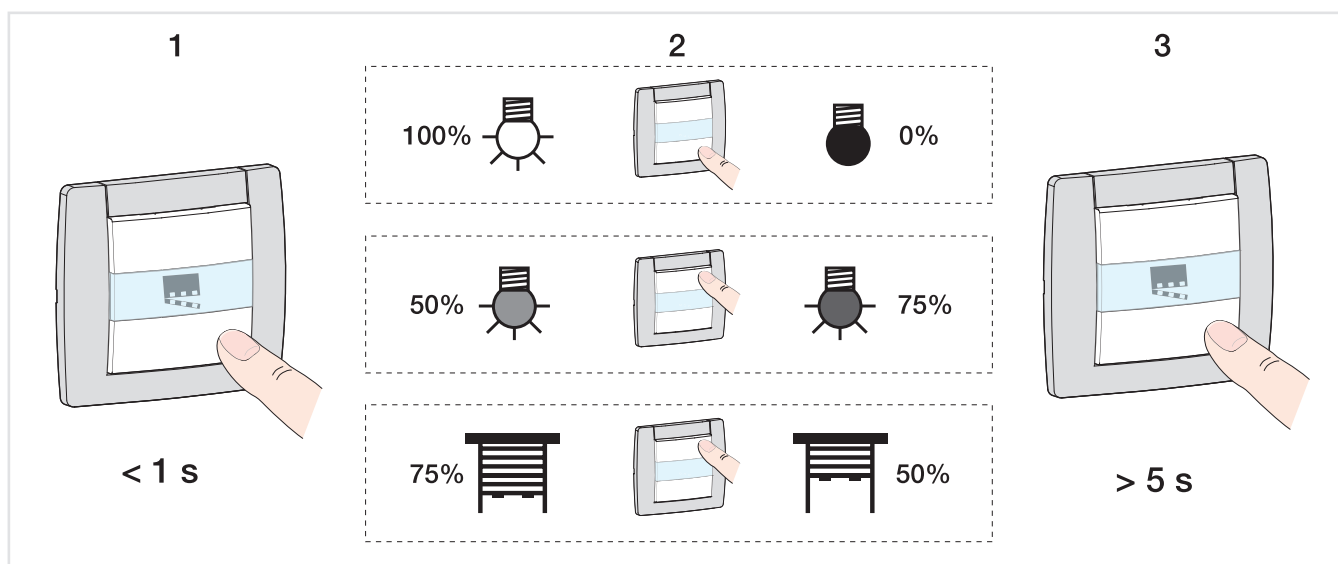

2.3 Repeater Function

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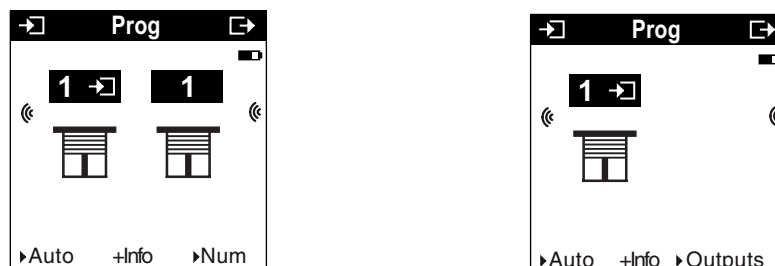
The +Info mode allows the status indication to be linked from an output to a viewing product: Area controller, LED output, etc. The status indication sends the current status over the network each time the status changes.

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.
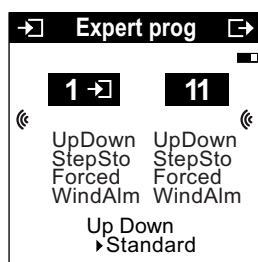
3.2 Expert mode

■ 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

Designation TX100	Function	Format	Description
UpDown	Up / Down	1 bit	The **UpDown** object enables the output to be switched to raise or lower the rolling shutter or the blinds.
StepStop	Slat angle / Stop	1 bit	The **Stop** object enables the output to be switched to angle the blind slats, or stop the up or down movement.
Forced	Priority	2 bit	The **Forced** object enables an output to be forced.
WindAlm	Wind alarm	1 bit	The **WindAlm** object enables the wind alarm to be activated.
RainAlm	Rain alarm	1 bit	The **RainAlm** object enables the rain alarm to be activated.
Scene	Scene	1 byte	The **Scene** object enables a sceme to be activated or memorised.
IUpDown	Status indication of the output	1 byte	The **IUpDown** object enables the status of the output to be sent: Position of the rolling shutter or the blinds and current operating mode of the output (Alarm, Priority, jamming, Normal).

4. Restore Factory Configuration function

This function enables the device to be returned to its initial configuration (configuration when it came out of the factory). 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 inital configuration (quicklink 🔍, TX100 or ETS), it is necessary to carry out a factory reset on the device.

5. Characteristics

Product	TRB221 / TRE221	TRB221A
Max. number of group addresses	91	88
Max. number of links	100	100