





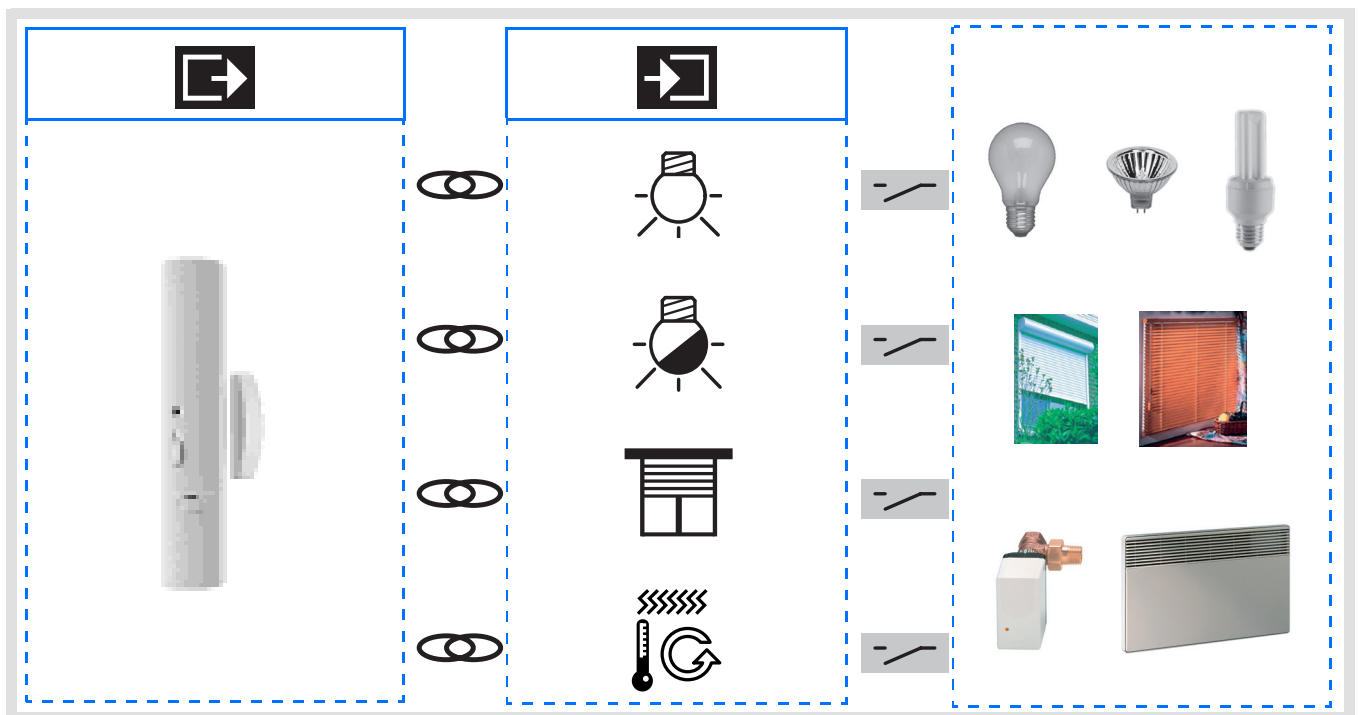
Tebis TX100 Configurator



quicklink RF opening detector

Electrical / Mechanical characteristics: see product user's instructions

	Product reference	Product designation	TX100 version	TP device  RF device 
	TRC301B	RF opening detector	≥ 2.7.0	





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1. Presentation


1.1 General points

The radio opening detector to which this document refers is an quicklink  RF product. It can be recognised by its **cfg** configuration push button. 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.

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.

1.2 Description of the product

General points:

The opening detector is a battery powered KNX radio transmitter. It has a status indication input and a freely programmable input.

The "status indication" 0 input  indicates the opening and closing of a door or window by the **Status indication** object. If this object is linked to a thermostat to a temperature regulator, it will automatically launch a frost protection priority control when the window opens and a priority cancellation order when the window is closed.

Input 1  is used to activate a second KNX control linked to the opening and/or closing of the window. This KNX control is freely programmable among the lighting and shutter applications and is defined by the choice of functions offered by the TX100 configuration tool. A time delay of approximately fifteen seconds applies between the emission of two consecutive controls.

Automatic mode cancellation button

A button on the front of the product allows the user to interrupt automatic operation (no more radio transmissions except for the **Status indication - Battery status** object). The effect of this button can be inhibited by configuration, leading to permanent automatic function.

Remote contact

To increase the capacities of the detector, a remote contact can be connected. The two contacts will then be processed as an OR logic function. To activate detection by the remote contact, its window must be activated at least once. To remove a remote contact which has already been activated, reset the product by removing the batteries for 30 s.

1.3 Function Description

The main functions are the following:

■ Emission of commands (Input 1)

The inputs are used to send controls for lighting, rolling shutters and blinds and scenes.

Emission of commands:

- Lighting control : ON, OFF, Timer, Value in %, Priority.
- Shutters / Blinds control: Up, Down, Stop, Slat angle, Value in %, Priority.

■ Scene (Input 1)

The Scene function sends group controls to different kinds of outputs to create ambiances or scenarios.

Example of scene 1: Leave the house (centralised lighting OFF control, shutters on the south side lowered to 3 / 4, the other shutters open).

■ Priority (Input 1)

The Priority function allows an input to be forced to a defined status. The forcing action depends on the type of application controlled: Lighting, Shutters / blinds.

■ Opening detection, Status indication

The **Status indication - Opening detection** object is in 1 bit format and is transmitted each time opening or closing is detected. A time delay of approximately twenty seconds applies between two consecutive controls.

■ Battery Status, Status indication

The **status indication - battery status** object is information sent on the bus when the battery charge reaches a critical level. Information is not sent periodically.


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. For normal operation, the radio transmitters operate in a one-direction mode. Configuration takes place in bi-directional mode.

2.1.1 Configuration principle



→ Activating configuration mode

- Press successively on each **cfg** push button on each transmitter to be programmed, put it into "listening" mode for configuration. When pressing, the cfg LED of the transmitter concerned shows a solid red light, which will turn off when the cfg push button on the next transmitter is pressed, and so on. All the transmitters selected will then switch to bi-directional mode for the remainder of the configuration. The output from this mode is automatic after 10 min of inactivity or a change to "auto" on the TX100. Once the cfg push button is pressed on a transmitter, the output modules automatically switch to configuration mode,
- 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 → ✓ ,
- Numbering of the opening detector inputs by pressing the button on the front of the product:
 - Short press = Input 0  : Opening detection - Status indication
 - Long press > 5 s = Input 1  : Switch input
- A beep will sound when the input is detected, the configurer will automaticallu allocate a number to it.







→ 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 Opening detector Function - Status indication











The opening detection - status indication input is presented in the left part of the TX100 by the  symbol.


This input is used to obtain the operation given in the table below according to the types of outputs linked to this input.

Input Status indication	Type of output associated	Output operation
		Opening the detector contact (opening the window) causes an On to be sent (an indication LED lights up). Closing the contact causes an Off to be sent (the LED goes off).
		Opening the detector contact (opening the window) causes an On to be sent (an indication LED lights up). Closing the contact causes an Off to be sent (the LED goes off).
		Associated with a thermostat or a temperature regulator, opening the detector contact activates Frost protection priority. Closing the window cancels the Frost protection priority.


2.3 On / Off and Dimmer Lighting controls

Functions applicable to input 1 (freely programmable).

Possible link type	Link description	Output operation
 ON	The ON function switches the lighting circuit ON.	Opening the detector contact (on the window) causes the light to come on. No action on closing the contact.
 OFF	The OFF function switches the lighting circuit OFF.	Opening the contact causes the light to go off. No action on closing the contact.
 Switch	The Switch function switches the lighting circuit ON or OFF.	Opening the contact causes the light to come on. Closing the contact causes the light to go off.
 Level 25%	Turning on the light to 25%.	Opening the contact causes the light to come on to 25%. No action on closing the contact
 Level 50%	Turning on the light to 50%.	Opening the contact causes the light to come on to 50%. No action on closing the contact
 Level 75%	Turning on the light to 75%.	Opening the contact causes the light to come on to 75%. No action on closing the contact
 Level 100%	Turning on the light to 100%.	Opening the contact causes the light to come on to 100%. No action on closing the contact
 Level x% / Level y%	Enables switching between 2 configurable dimming levels. 1st Dimming and 2nd Dimming Values: 0% to 100% in 10% steps. Default value: 0%	Opening the contact causes the light to come on to x%. Closing the contact causes the light to come on y%.
 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.	Opening the contact causes the light to come on with a time delay. Successive openings during the first 10 seconds multiplies the time delay by the number of openings executed. One opening performed after the first 10 seconds restarts the duration of the timer once.
 Priority ON	The Priority ON function forces the lighting circuit ON and maintains it ON.	Opening the contact causes the output to be prioritised to ON. Closing the contact causes the immediate interruption of the ON priority on the output. Priority is the function with the highest priority. Only a cancellation command for the priority can end the priority and authorise other commands to be followed again. After confirming the link, select the behaviour to follow Priority Cancellation: <ul style="list-style-type: none"> Maintain: the output is maintained in the same status as during Priority, Inversion: the output is inverted in relation to the status active during Priority.

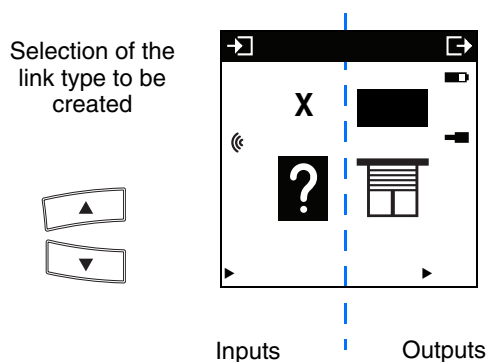
Possible link type		Link description	Output operation
 Priority OFF	The OFF Priority function forces the lighting circuit OFF and maintains it OFF.	Opening the contact causes the output to be prioritised to OFF. Closing the contact for the input causes the immediate interruption of the OFF priority on the output. Priority is the function with the highest priority. Only a cancellation command for the priority can end the priority and authorise other commands to be followed again. After confirming the link, select the behaviour to follow Priority Cancellation: <ul style="list-style-type: none"> • Maintain: the output is maintained in the same status as during Priority, • Inversion: the output is inverted in relation to the status active during Priority. 	


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 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
	Up	The Up function is used to raise a rolling shutter or blind.	Opening the contact causes the closure of the UP output contact (Up fonction of a shutter or blind). No action on closing the contact
	Down	The Down function is used to lower a rolling shutter or blind.	Opening of the contact causes the closure of the Down output contact (Down function of a shutter or a blind). No action on closing the contact
	Up / Down	The Up / Down function raises or lowers a roller shutter or a blind.	Opening the contact causes the closure of the Up output contact (Up function for a rolling shutter or a blind) and closing the contact causes the immediate closure of the Down output contact (Down function for a rolling shutter or blind).
	Down / Up	The Down / Up funtion is used to lower or to raise a rolling shutter or blind.	Opening the contact causes the closure of the Down output contact (Down function for a rolling shutter or blind) and closing the input contact causes the immediate closure of the Up output contact (Up function for a rolling shutter or a blind).
	Up priority	The Priority up function forces the Up movement of a shutter or a blind.	Opening the contact causes the immediate Up control of a rolling shutter or blind.* Closing the contact causes the immediate cancellation of the Up priority. Priority is the function with the highest priority. Only a cancellation command for the priority can end the priority and authorise other commands to be followed again. After confirming the link, select the behaviour to follow Priority Cancellation: <ul style="list-style-type: none"> • Maintain: the output is maintained in the same status as during Priority, • Inversion: the output is inverted in relation to the status active during Priority (→ Shutter Down). A priority is also cancelled by another Priority command.
	Down priority	The Down Priority function forces the Down movement of a shutter or a blind.	Opening the contact causes the closure with a time delay of the Down output contact (Down function of a shutter or a blind).* Closing the contact causes the cancellation of the Down priority. Priority is the function with the highest priority. Only a cancellation command for the priority can end the priority and authorise other commands to be followed again. After confirming the link, select the behaviour to follow Priority Cancellation: <ul style="list-style-type: none"> • Maintain: the output is maintained in the same status as during Priority, • Inversion: the output is inverted in relation to the status active during Priority (→ Shutter up). A priority is also cancelled by another Priority command.

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

2.5 Heating function

Input 1 is not suitable for heating controls. Refer to the **status indication** object (see chapter 2.2) which allows the following to be performed:

- Activation of Frost protection priority when the window is opened,
- Cancellation of the Frost protection priority when the window is closed.

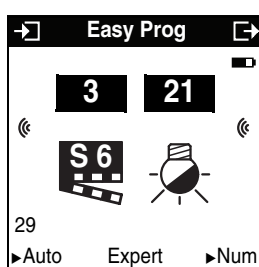
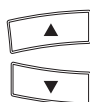
2.6 Scene Functions

■ Link creation

By selecting a Scene function (number 1 to 8) it is possible to create links between the detector and the outputs which are to be included in the scene.

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

Selection of the link type to be created



Possible link type	Link description	Output operation
<p>Scene 1 to 8</p>	<p>The Scene function groups a set of outputs. These outputs can be set to an adjustable predefined status. A scene is activated by opening the detector contact. Each output may be integrated into 8 different scenes.</p>	<p>The status of each output must be defined by parameterising the actuators or regulators. The opening detector does not allow for the recording of the scenes. It only allows for activation.</p>
<p>2 Levels scenes</p>	<p>The 2 Levels scene function allows for the activation of one scene at the opening of the window and a different scene at the closing of the window.</p> <p>Set value for the x scene: 1 - 8 Set value for the y scene: 1 - 8</p>	<p>Opening of the window → Activation of the x scene</p> <p>Closing of the window → Activation of the y scene</p> <p>The status of each output must be defined by parameterising the actuators or regulators. The opening detector does not allow for the recording of the scenes. It only allows for activation.</p>

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

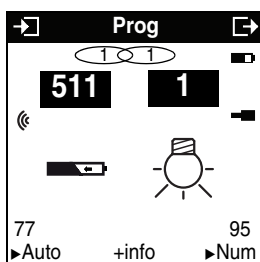
3.1 Mode + Info

■ Low battery

For the battery-powered radio transmitters, an additional entry provides information: Low battery. It is indicated by the symbol on the TX100 screen. This input is numbered in decreasing order starting from 511. It is accessible from the "+ Info" filter in TX100 "prog" mode.

■ Create a link "Low battery"

- Press the or keys to select the low battery input and an output,
- Press for a long time to confirm the link.



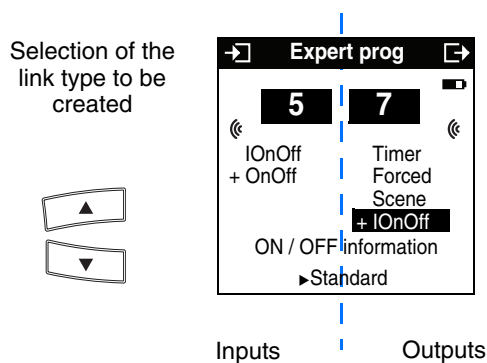
3.2 Expert mode

■ General points

The Expert mode allows:

- Non-configurable EIB 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		Designation ETS	Format	Description
WindowsSt	Contacteur status	Opening detector - Status indication	EIS1 1 bit	Allows an ON / OFF command to be transmitted Used to force a setpoint to Frost protection.
BattStat	Battery status	Battery Status - Status indication	EIS1 1 bit	Allows you to know the status of the batteries.
OnOff	ON OFF	ON / OFF	EIS1 1 bit	Allows an ON / OFF command to be transmitted.
IOnOff	ON / OFF information	Status indication - ON / OFF	EIS1 1 bit	Indicates the output's status.
DimVal	Absolute dimming	Dimming	1 byte	Allows you to control a lighting output at an adjustable dimming level.
Timer	Timer	Timer	EIS1 1 bit	Allows you to activate or interrupt the timer.
Forced	Priority	Priority	EIS2 2 bit	Forces an output.
StepStop	Slat angle	Slat angle	1 bit	Sends a slat angle command for a blind.
UpDown	Up / Down	Up / Down	1 bit	Sends an Up or Down command for a roller shutter or a blind.
IUpDown	Up / Down information	Up / Down information	1 bit	Provides the status of the Up / Down output (1 BP command).
Wind Alm	Wind alarm	Wind alarm	1 bit	Used to activate the wind alarm.
RainAlm	Rain alarm	Rain alarm	1 bit	Used to activate the rain alarm.
Scene	Scene	Scene	1 byte	Activates the scene by its number.

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.

5. Characteristics

Product	TRC301B
Max. number of group addresses	60
Max. number of links	85

