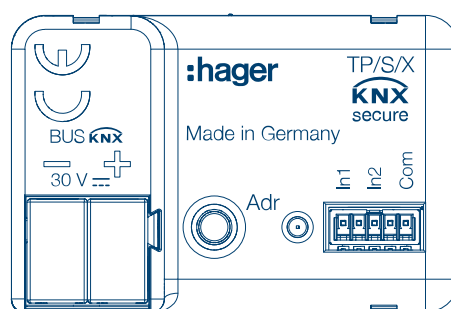**Application description**

KNX Building system technology
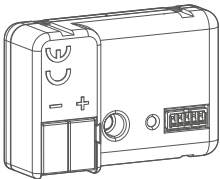# Flush mounted input device
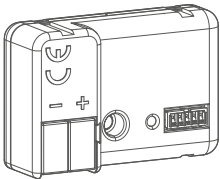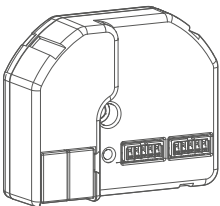
Flush mounted input device 2 -fold, 4 -fold
TYBS702A / TYBS704A / TYBS794A

:hager

EN

Product overview

	Reference no.	Product designation	Application software ref.	TP device Radio device
	TYBS702A	Flush mounted input device 2 -fold, KNX Secure		
	TYBS704A	Flush mounted input device 4 -fold, KNX Secure		
	TYBS794A	Flush mounted input+LED output 4 -fold, KNX Secure		

Subject to technical changes!

Content

1. General

1.1 About this guide

The purpose of this manual is to describe the operation and configuration of the KNX-devices using the Easy tool program.

It consists of 3 parts:
- General information.
- The Easy tool configurations are available.
- Technical characteristics.

1.2 Easy tool software appearance

This product can also be configured using the configuration tool.

Compatible software version: V 7.0.9 or higher

Kompatible Server :
- TJAS471: Domovea plus
- TJAS671: Domovea basic
- TJA470: Domovea expert
- TJA670: Domovea basic
- TJA665: Konfigurationsserver KNX easy

It is essential to update the configuration server software version. (Please refer to the user manual).

2. General Description

2.1 Installation of the device

2.1.1 Overview presentation
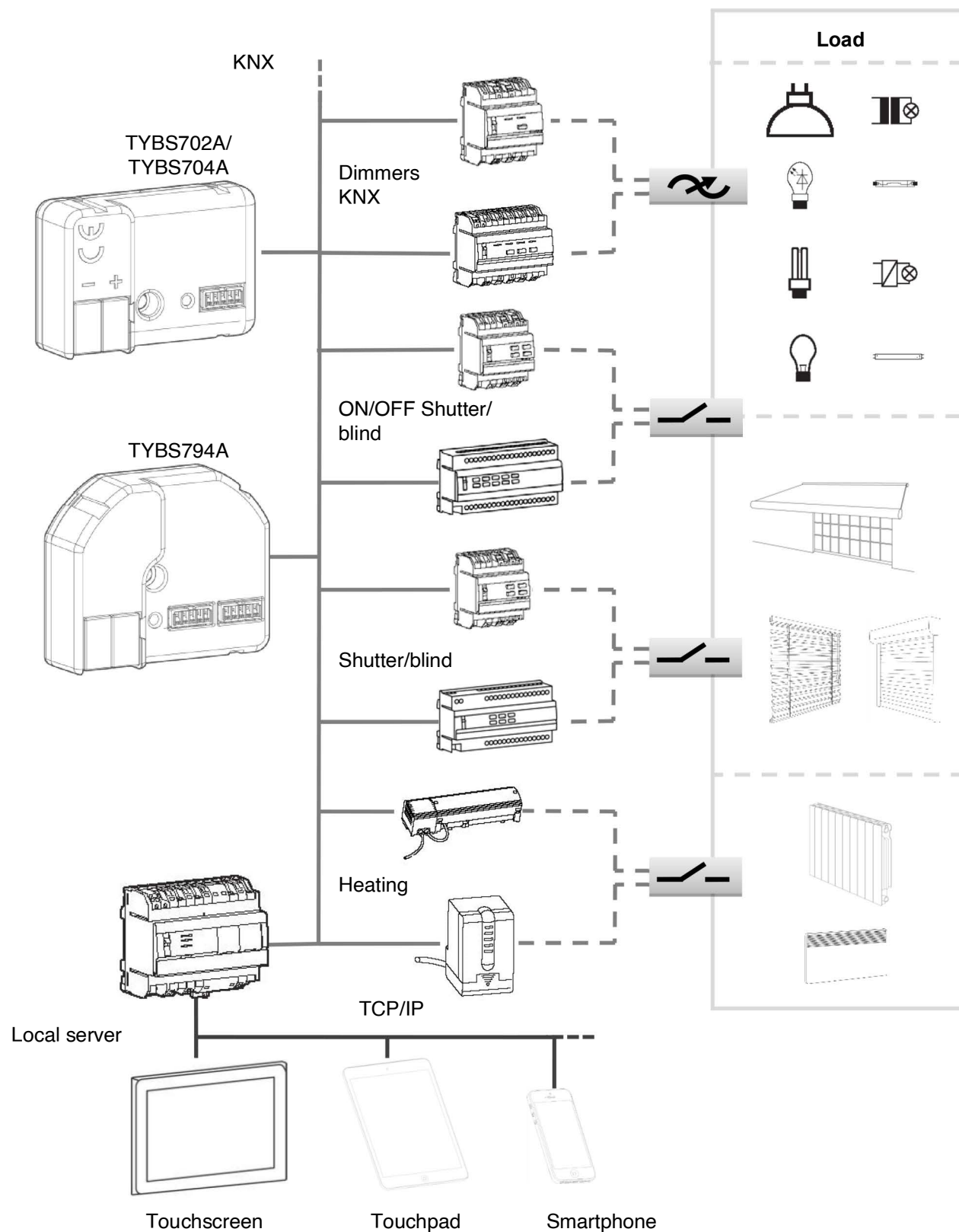
2.1.2 Description

:
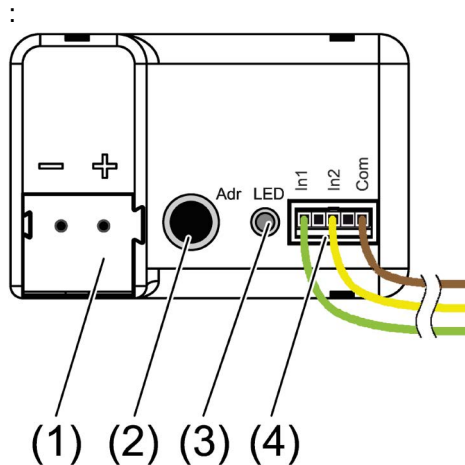
"2-gang" device variant
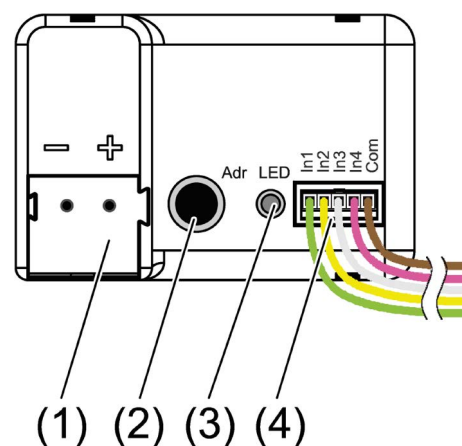
"4-gang" device variant
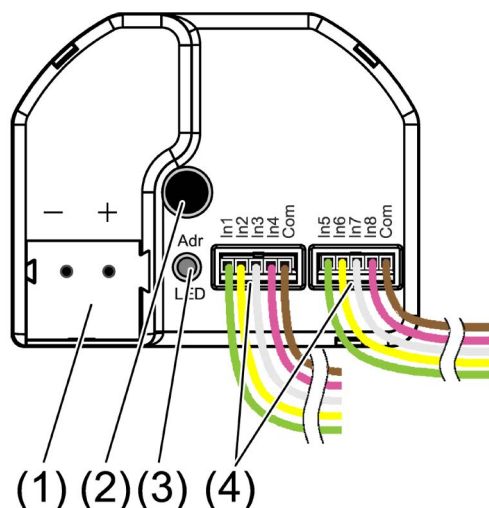
"4-gang" device variant + 4-fold output LED

(1) KNX connection
(2) Programming button
(3) Programming LED
(4) Connecting cable

2.1.3 Physical addressing

In order to perform the physical addressing or to check whether or not the bus is connected, press the lighted push button (see chapter 2.1.2 for the button location).

Light on = bus connected and ready for physical addressing.

Programming mode is activated, until the physical address is transferred from ETS. Pressing the button again, exits programming mode. Physical addressing can be carried out in automatic or manual mode.

2.2 Function modules of the application

The command organs connected to inputs (remote switch, switch, automation) enable lighting, shutters, blinds, heating and scenes commands.

The most important functions are:

■ Toggle switch

The Toggle switch function consists in inverting the output status after each press.

■ ON/OFF

The ON/OFF function a lighting, rolling shutter or heating circuit to be switched on or off. The command can come from switches, push-buttons or automations.

■ Timer

The Timer function enables a lighting, rolling shutter or heating circuit to be switched on or off for a programmable length of time. A short press on the push-button re-launches the timer. The timer can be interrupted before the end of the time by a long press. A programmable Cut-OFF pre-warning announces the end of the delay time by a 1-second inversion of the output status.

■ Shutter/blind

This function enables a rolling shutter or a blind to be controlled from 2 push-buttons. The Up/Down command (**Up/Down** object) is issued by a long press on the button. The Stop/Tilt function issues the object **Tilt/Stop** (short press).

■ Dimming

This function enables a light to be dimmed from one or two input contacts. The ON/OFF function issues the object **ON/OFF** (short press). The Dimming function issues the object **Dimming** (long press).

■ Heating

This function enables a heating or air-conditioning instruction (Auto, Comfort, Economy, Night setpoint, Frost protection) to be selected. The command can come from switches, push-buttons or automations.

■ Priority

The Priority function enables an input to be forced into a defined state. The priority action depends on the type of application commanded: Lighting ON/OFF, Rolling shutter, Heating.

■ Scene

This function enables scenes to be saved or selected. These concern different types of output (lighting, blind, shutter, heating) to create ambiances or scenarios (leaving scenario, reading ambiance etc.).

■ Alarms

The Alarm function issues alarms on a cyclical basis to the bus from automations (anemometer, rain detector, twilight switch etc.).

■ Choice of circuits to be displayed on the LED outputs (TYBS794A only)

The LED outputs (status indication) are used to control the switching on of conventional indicator LEDs. This function makes it possible to choose the circuit shown for each LED output:
- The circuit controlled by the corresponding input,
- Any other installation circuit.

2.3 easylink commissioning

For commissioning in the easylink system, an easylink configuration server (e.g. domovea basic/expert with easy TJA470 or TJA670 or domovea basic/plus TJAS471 or TJAS671) must be installed temporarily or permanently in the KNX system.

Refer to the detailed descriptions for domovea expert/basic with easy for further information on system configuration in easylink mode.

■ Special features of localisation in the easyTool

The localisation of the universal interface (TYBS7xx) is described in the following steps and differs from the usual procedure for localisation in the easyTool. Localisation is carried out after installing several (e.g. identical) devices, in order to be able to assign them uniquely in the easy project.
In contrast to the usual procedure, only the programming button and red programming LED are used on the device.
Prerequisites:
- The KNX installation is installed in accordance with the regulations for easyTool operation.
- The universal interface is connected to the bus.
- The easyTool or the domovea basic/expert are connected ready for operation.
- The universal interface has already been added to the easy project.

- • Start the Hager Pilot on the preferred medium/means of communication (tablet, laptop, etc.) and connect it to the server.
- • In the easyTool, click the Localization menu box.
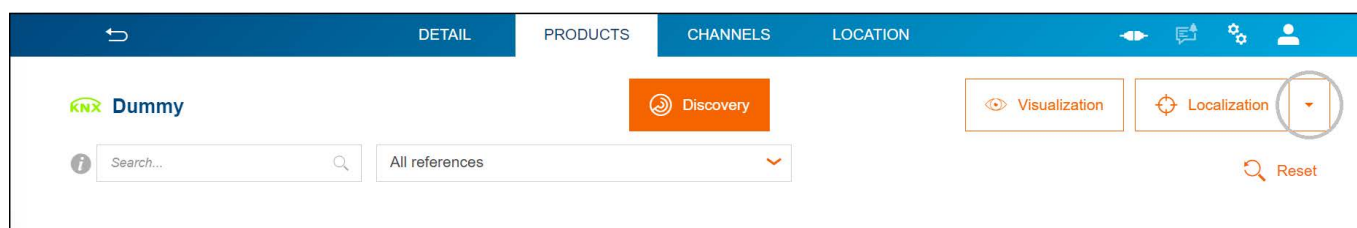
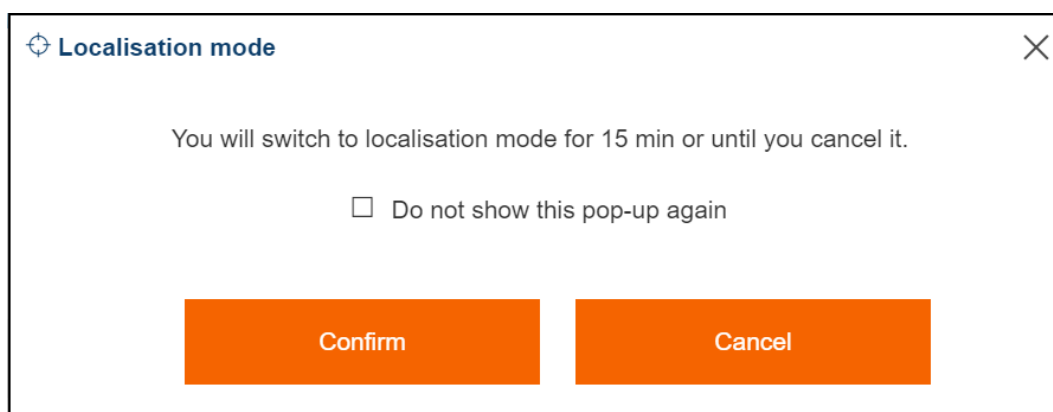Two menu entries are visible.

- • In the Localization menu box, select either **Localization with Physical Effect** or **Localization without Physical Effect**.
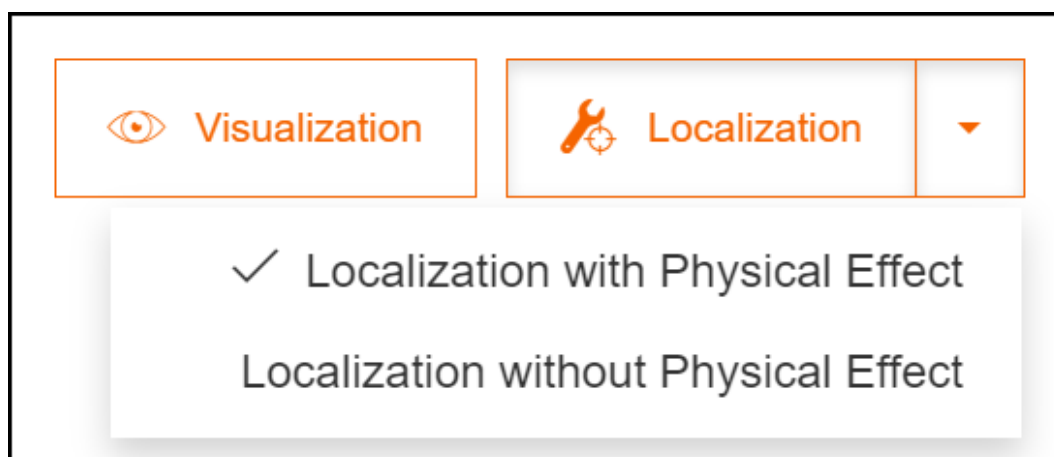
- • After selecting one of the menu items, click the **Localization** menu box.
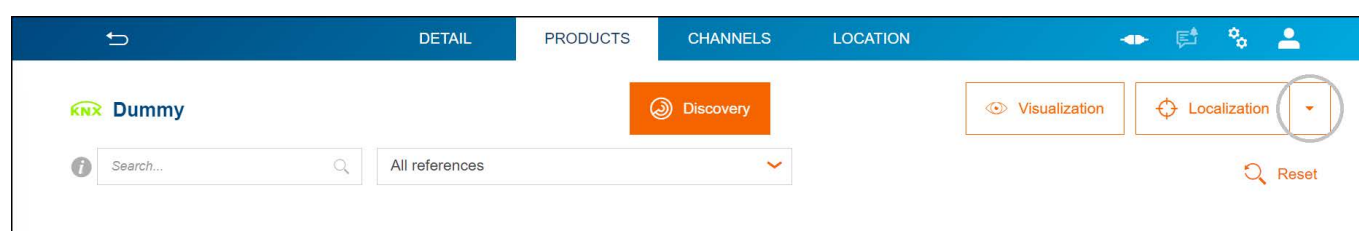The **Localization Mode** menu window opens..

- Click **Confirm**

The **Localization** menu box is highlighted in orange.

Note: Localisation of the device is only possible if the menu box is highlighted in orange.

Devices can be identified using the programming LED via three different procedures.

Procedure 1 : Localisation via the product list in the easyTool
- Select the device to be used in the device list by clicking.

The programming LED of the device lights up.
- De-select the device to be used in the device list by clicking again.

The programming LED of the device goes out.

The device is localised in the easyTool..

Procedure 2 : Localisation via the channel list in the easyTool
- Highlight the channel of the device to be used by clicking in the channel list.

The programming LED of the device lights up.
- De-select the device to be used in the channel list by clicking again.

The programming LED of the device goes out.

The device is localised in the easyTool.

Note: If several channels of the same device are highlighted in the channel list, the programming LED remains activated until the last channel of the device is unhighlighted by clicking..

Procédure 3 : Localisation via the device
- Press the programming button of the device.

The programming LED lights up.

The device is highlighted in the device list and all channels of the device are highlighted in the channel list.
- Press the programming button of the device again.

The programming LED goes out and all highlighting in the device and channel list is deactivated..

3. Programming by Easy Tool

3.1 Product overview

■ **TYBS702A: Flush-mounted 2 input module**

Product view:

Product ⌄	⇄ **2 Inputs**
Name: `TYBS702A - 2 In embedded`	1 (?) TYBS702A - 1 - 1 *House* ⇄
Use:	2 (?) TYBS702A - 1 - 2 *House* ⇄
Place: House ⌄	
Electrical tracking: `TYBS702A - 1`	
ⓘ Product : **TYBS702A** *2 In embedded*	

View of channels:

2 inputs
(?) TYBS702A - 1 - 1 *Housing*
(?) TYBS702A - 1 - 2 *Housing*

0 output

■ **TYBS704A: Flush-mounted 4 input module**

Product view:

Product ⌄	⇄ **4 Inputs**
Name: `TYBS704A - 4 In embedded`	1 (?) TYBS704A - 1 - 1 *House* ⇄
Use:	2 (?) TYBS704A - 1 - 2 *House* ⇄
Place: House ⌄	3 (?) TYBS704A - 1 - 3 *House* ⇄
Electrical tracking: `TYBS704A - 1`	4 (?) TYBS704A - 1 - 4 *House* ⇄
ⓘ Product : **TYBS704A** *4 In embedded*	

View of channels:

4 inputs
(?) TYBS704A - 1 - 1 *Housing*
(?) TYBS704A - 1 - 2 *Housing*
(?) TYBS704A - 1 - 3 *Housing*
(?) TYBS704A - 1 - 4 *Housing*

0 output

■ TYBS794A: 4 flush-mounted inputs + 4-fold output LED

Product view:

Product	⌄		🔀 4 Inputs ⤢ 4 Outputs
Name:	TYBS794A - 4 In 4 out LED	1	? TYBS794A - 1 - 1 / House ⇄
Use:		2	? TYBS794A - 1 - 2 / House ⇄
Place:	House ⌄	3	? TYBS794A - 1 - 3 / House ⇄
Electrical tracking:	TYBS794A - 1	4	? TYBS794A - 1 - 4 / House ⇄
ⓘ Product : **TYBS794A** 4 In 4 out LED			

View of channels:

4 inputs		4-fold output	
?	TYBS794A - 1 - 1 / *Housing*	⯈	TYBS794A - 1 - 1 / *Housing - Common function*
?	TYBS794A - 1 - 2 / *Housing*	⯈	TYBS794A - 1 - 2 / *Housing - Common function*
?	TYBS794A - 1 - 3 / *Housing*	⯈	TYBS794A - 1 - 3 / *Housing - Common function*
?	TYBS794A - 1 - 4 / *Housing*	⯈	TYBS794A - 1 - 4 / *Housing - Common function*

■ Available functionalities: Input

Lighting			
☝	ON	Ⓘₐ	Automatic control ON
Ⓘ	OFF	Ⓘₐ	Automatic control OFF
⏻	ON/OFF	☝	General ON
─┴─	Toggle switch	Ⓘ	General OFF
🕒	Timer	⏻	General ON/OFF
🔑	Priority ON	▨	Scene
🔑	Priority OFF	⤢	Scene switch
ⓐ	Automatic control ON	ⓐ	Automatic control deactivation
		ⓐ	Deactivation Automatic control push-button (1)

Dimming			
	Increase dimming/ON		Colour temperature colder
	Decrease dimming/OFF		Colour temperature warmer
	Increase/decrease dimming		Colour scrolling forward
	Dimming		Colour scrolling backward
	Dimming switch		Scene
	Dimming automatic control PB		Scene switch
	Dimmer switch automatic control		Automatic control deactivation
			Deactivation Automatic control push-button (1)

	Shutter/blind		
	Blinds up		Priority up
	Blinds down		Priority down
	Shutter UP		Wind alarm
	Shutter DOWN		Rain alarm
	Toggle switch up/down		Automatic control shutter angle
	Up/down		Automatic control slat angle
	Down/up		Automatic control shutter and slat angle
	Switch up		Automatic control shutter position switch
	Down switch		Automatic control inter slat angle
	Up/stop		Automatic control inter shutter and slat angle
	Down/stop		Central up
	Shutter position		Central down
	Slat angle		Central up/down
	Shutter and slat angle		Scene
	Shutter angle switch		Scene switch
	Slat angle switch		Automatic control deactivation
	Shutter and slat angle switch		Deactivation Automatic control push-button (1)

Heating/Cooling			
	Comfort mode		Fenster
	Eco mode		Heating/cooling off
	Standby mode		Heating/cooling
	Protection mode		Comfort mode automatic control
	Auto mode		Eco mode automatic control
	Switch mode		Standby mode automatic control
	Comfort/eco mode		Protection mode automatic control
	Comfort/standby mode		Switch mode automatic control
	Protection/Auto mode		Scene
	Comfort priority		Scene switch
	Protection priority		Automatic control deactivation
	Timed comfort		Deactivation Automatic control push-button (1)

Metering			
€	Tariff	▨	Scene
ⓐ	Automatic control deactivation	▨↱	Scene switch

Audio			
🔊	Audio on	🔊♡	Favorite
🔇✕	Audio off	▨	Scene
🔊⏻	Audio on/off	▨↱	Scene switch
🔊+	Volume +	ⓐ	Automatic control deactivation
🔊−	Volume -	ⓐ	Deactivation Automatic control push-button (1)

3.2 Input operation mode

3.2.1 Lighting

An output can be switched on or off using the ON/OFF function.

Available functionalities			
⏻	ON	Ⓘₐ	Automatic control OFF
Ⓘ	OFF	Ⓘₐ	ON/OFF automatic control
⏻	ON/OFF	⏻	General ON
⎓⏚⎓	Toggle switch	Ⓘ	General OFF
🕐	Timer	⏻	General ON/OFF
🔑	Priority ON	▨	Scene
🔑	Priority OFF	▨	Scene switch
⟳ₐ	Automatic control ON	ⓐ	Automatic control deactivation
		ⓐ	Deactivation Automatic control push-button (1)

Note: *For the function **Automatic control deactivation**, see: Automatic control deactivation.*
*For the function **Scene** and **Switch scene**, see: Scene.*

- **ON**: Switches the lighting circuit on.
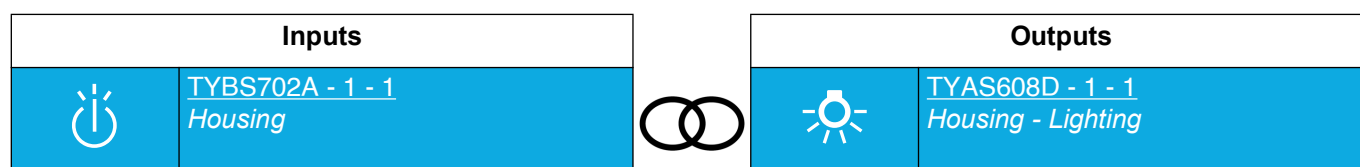
Inputs			Outputs	
⏻	TYBS702A - 1 - 1 *Housing*	◯◯	☀	TYAS608D - 1 - 1 *Housing - Lighting*

Activation of the input by short presses switches on the light.
Successive activation keeps the light on.

- **OFF**: Switches the lighting circuit off.
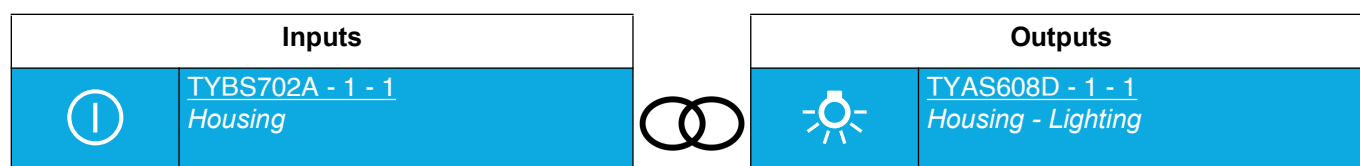
Inputs			Outputs	
Ⓘ	TYBS702A - 1 - 1 *Housing*	◯◯	☀	TYAS608D - 1 - 1 *Housing - Lighting*

Activating the input switches off the light. Successive activation keeps the light off.

- **ON/OFF**: Switches the lighting circuit on or off(Switch).

Inputs	
(symbol)	**TYBS702A - 1 - 1** *Housing*

Outputs	
(symbol)	**TYAS608D - 1 - 1** *Housing - Lighting*

Closing the input contact switches on the light. Opening the input contact switches off the light.

Below are the outputs which can also have these functions:

(icon)	Dimming	Controls the dimming output for switching the light on and off. This procedure enables a same input to be connected to an ON/OFF output and to a dimming output.
(icon)	Heating	Controls the output for switching the heating system on and off.
(icon)	CMV	Controls the output for switching the CMV system on and off.
FPL	Backlight	Receives status indications from another product for controlling the Backlight.
(icon)	Override	Overrides the current operating mode.
(icon)	Logical operation	Receives the status of the inputs or outputs of one or more products in order to perform a logical operation for displaying information.

It is also possible to make a link between 2 inputs. Below are the inputs which can also have these functions:

(icon)	Domestic Hot Water (DHW) control	Enables the control of a DHW boiler.
(icon)	Increase/decrease dimming	Controls the dimming input for switching the light on and off (Only with TX511 and TXC511).

3.2.1.1 Toggle switch

This function enables a lighting circuit or any other load to be commanded to switch on or off. Each time the push-button is pressed the output status is inverted.

Operating principle:
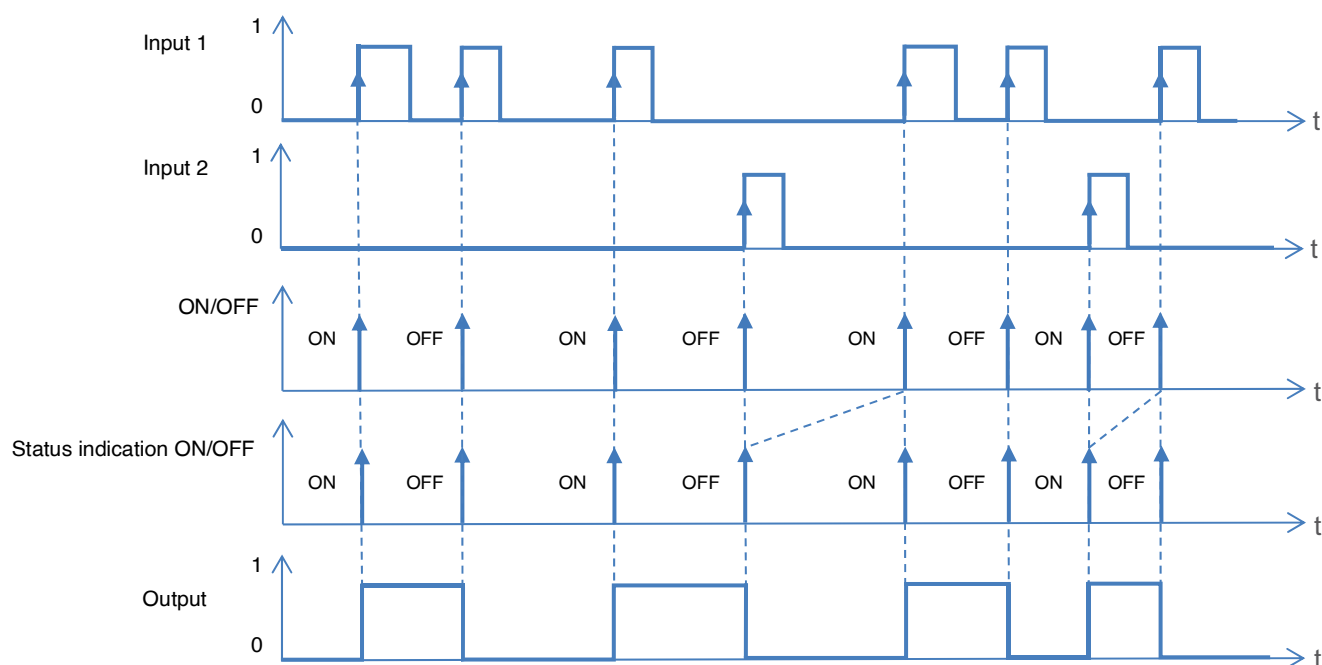
- **Toggle switch**: Inverses the lighting circuit status.

Inputs		Outputs	
─┴─	TYBS702A - 1 - 1 *Housing*	-☼-	TYAS608D - 1 - 1 *Housing - Lighting*
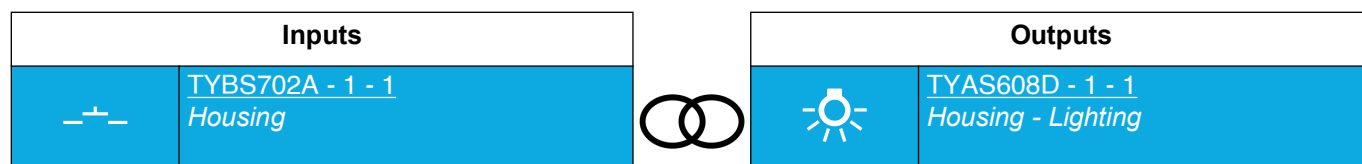
Activating the input by a short press switches between on and off.
Successive activation inverts the output contact status each time.

Below are the outputs which can also have these functions:

	Dimming	Controls the dimming output for switching the light on and off. This procedure enables a same input to be connected to an ON/OFF output and to a dimming output.
	Heating	Controls the output for switching the heating system on and off.
	CMV	Controls the output for switching the CMV system on and off.
FPL	Backlight	Receives status indications from another product for controlling the Backlight.
	Override	Overrides the current operating mode.
	Logical operation	Receives the status of the inputs or outputs of one or more products in order to perform a logical operation for displaying information.

It is also possible to make a link between 2 inputs. Below are the inputs which can also have these functions:

	Domestic Hot Water (DHW) control	Enables the control of a DHW boiler.
	Increase/decrease dimming	Controls the dimming output for switching the light on and off (Only with TX511 and TXC511).

3.2.1.2 Timer

The Timer function can switch a lighting circuit on or off for a configurable period. A short press on the push-button re-launches the timer. The timer can be interrupted before the end of the time by a long press.
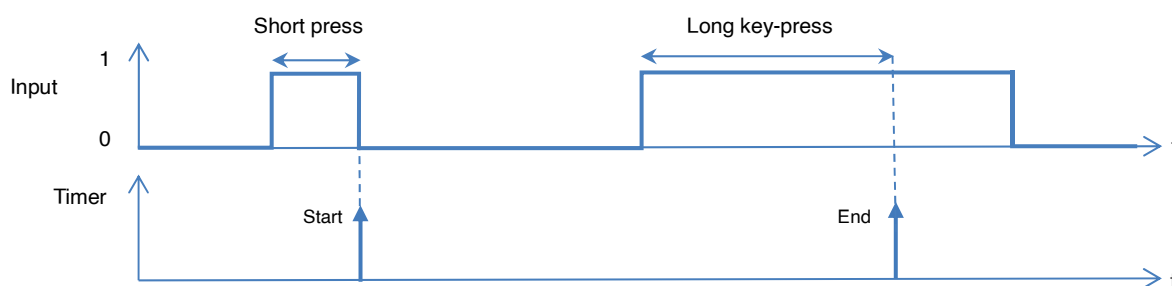
The Timer function is used to switch on a lighting circuit for a programmable period.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Lighting*
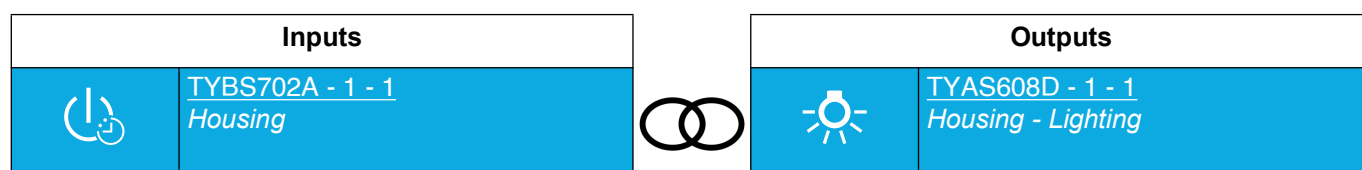
Activating the input by a short press <1 s switches on the light for a length of time.

Timing function interruption:
Activating the input with a long press >1 s stops timing function mid way and switches off (OFF).

Note: At the time of connection, it is possible to define the timer duration. This duration is defined on the output product.

Below are the outputs which can also have these functions:

	Dimming	Controls the dimming output for switching on the light to the last level memorised for a programmable duration.
	CMV	Controls the output for switching on the CMV system for a programmable duration.

3.2.1.3 Priority

The Priority function is used to force the output into a defined state.
This function the priority or priority cancellation controls to be issued.
No other command is taken into account when the Priority is active. Only priority or alarm cancellation commands will be taken into account.

- **Priority ON**: Allows forcing and keeping the lighting circuit on.

Inputs		Outputs	
⏻🔑	TYBS702A - 1 - 1 *Housing*	💡	TYAS608D - 1 - 1 *Housing - Lighting*
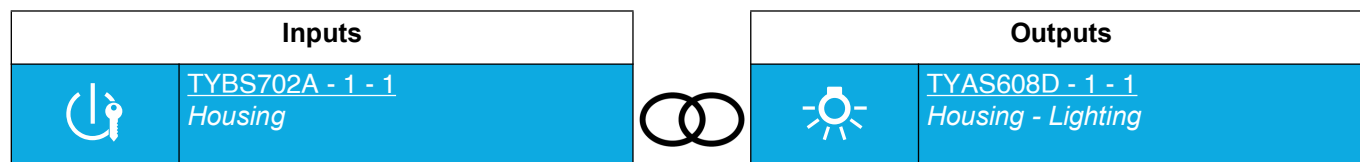
Activating the input forces the output to ON.
Successive activation switches between ON priority and priority cancellation.

- **Priority OFF**: Allows forcing and keeping the lighting circuit off.
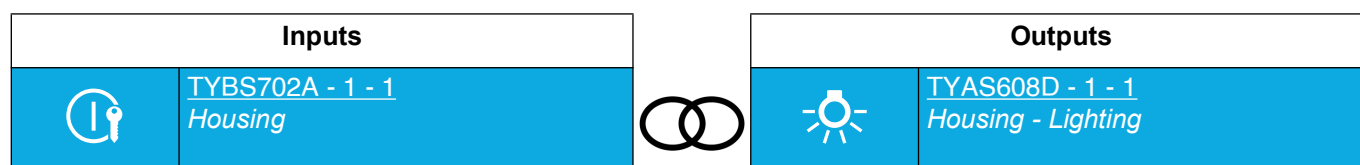
Inputs		Outputs	
⏻🔑	TYBS702A - 1 - 1 *Housing*	💡	TYAS608D - 1 - 1 *Housing - Lighting*

Activating the input forces the output to OFF.
Successive activation switches between OFF priority and priority cancellation.

Below are the outputs which can also have these functions:

💡	Dimming	Forces and keeps the lighting circuit on or off.

It is also possible to make a link between 2 inputs. Below are the inputs which can also have these functions:

💡	Increase/decrease dimming	Controls the dimming input for switching the light on and off (Only with TX511 and TXC511).

3.2.1.4 ON/OFF Automatic control

The Automatic control function enables an output to be controlled in parallel to the standard control. An additional command object (Automatic control deactivation) is used to activate or deactivate Automatic control.

- **Automatic control ON**: Allows turning on the light circuit using Automatic control.
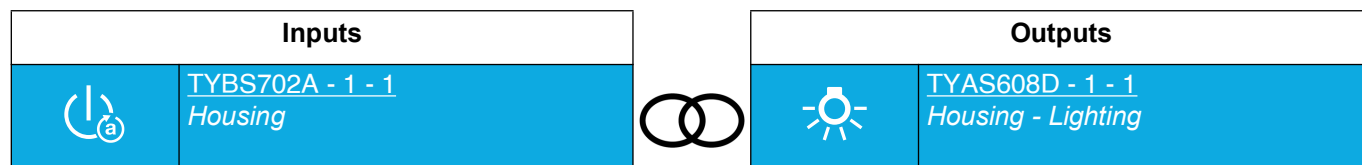
Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TYAS608D - 1 - 1 *Housing - Lighting*

Activation of the input by short presses switches on the light.
Successive activation keeps the light on.

- **Automatic control OFF**: Allows switching off the light circuit using automatic control.
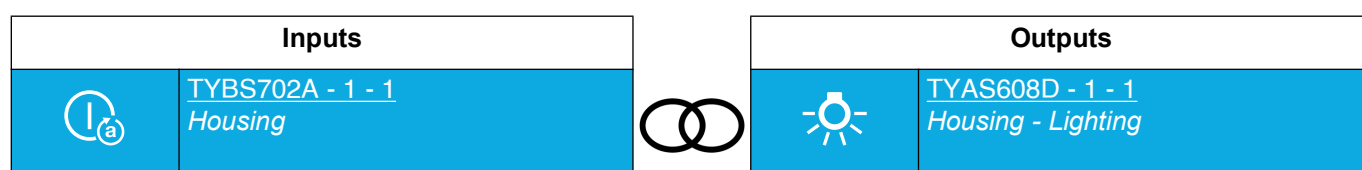
Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TYAS608D - 1 - 1 *Housing - Lighting*

Activating the input switches off the light.
Successive activation keeps the light off.

- **ON/OFF automatic control**: Allows turning the lighting circuit on or off using Automatic control (Switch).

Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TYAS608D - 1 - 1 *Housing - Lighting*

Closing the input contact switches on the light.
Opening the input contact switches off the light.

Below are the outputs which can also have these functions:

	Dimming	Controls the dimming output for switching the light on and off. This procedure enables a same input to be connected to an ON/OFF output and to a dimming output.

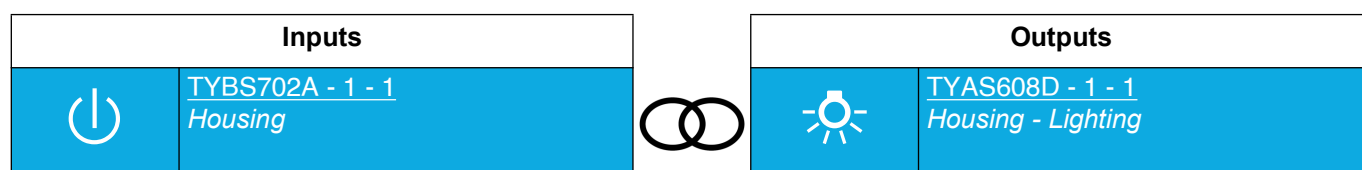*Note: By default, the input operates like an NO contact (Normally open). If the parameter **Inverted** is validated, the input operates like an NC contact (Normally closed).*

*Note: For the function **Automatic control deactivation**, see: Automatic control deactivation.*

3.2.1.5 General ON/OFF

The general ON/OFF function switches the lighting circuit assembly on or off. Unlike the ON/OFF function, it does not send the status indication of the controlled outputs. This prevents KNX bus saturation when switching outputs simultaneously.

It is recommended that you use this function for a number of lighting circuits greater than 20.

- General ON: Switches on a lighting circuit assembly.
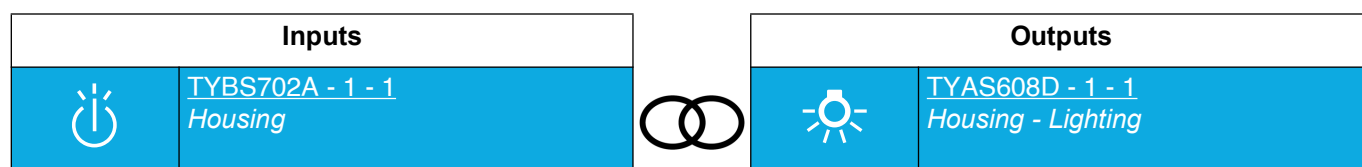
Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Lighting*

Activation of the input by short presses switches on the light. Successive activation keeps the light on.

- General OFF: Switches off a lighting circuit assembly.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Lighting*
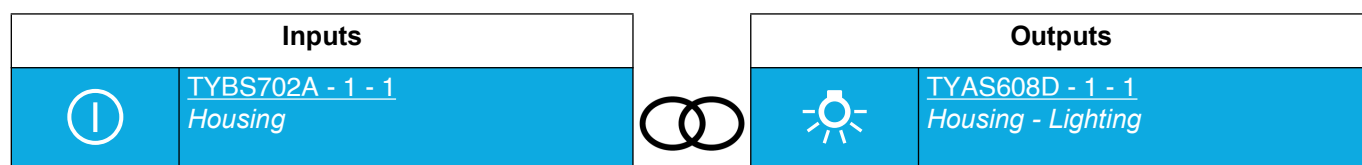
Activating the input switches off the light. Successive activation keeps the light off.

- General ON/OFF : Switches a lighting circuit assembly on or off (switch).

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Lighting*

Closing the input contact switches on the light. Opening the input contact switches off the light.

Below are the outputs which can also have these functions:

	Dimming	Controls the dimming output for switching the light on and off. This procedure enables a same input to be connected to an ON/OFF output and to a dimming output.

3.2.2 Relative variation

With relative dimming, the brightness value is raised or lowered with respect to the current brightness value. This is achieved, for example, by a long press on a sensor button.

| Dimming			
	Increase dimming/ON		Colour temperature colder
	Decrease dimming/OFF		Colour temperature warmer
	Increase/decrease dimming		Colour scrolling forward
	Dimming		Colour scrolling backward
	Dimming switch		Scene
	Dimming automatic control PB		Scene switch
	Dimmer switch automatic control		Automatic control deactivation
			Deactivation Automatic control push-button (1)

Note: *For the function **Automatic control deactivation**, see: Automatic control deactivation.*
        *For the function **Scene** and **Switch scene**, see: Scene.*

- **Increase dimming/ON**: Increases the output level.

Inputs			Outputs	
	TYBS702A - 1 - 1 *Housing*	⬭⬭		TYAS664AN - 1 - 1 *Housing - Dimming*
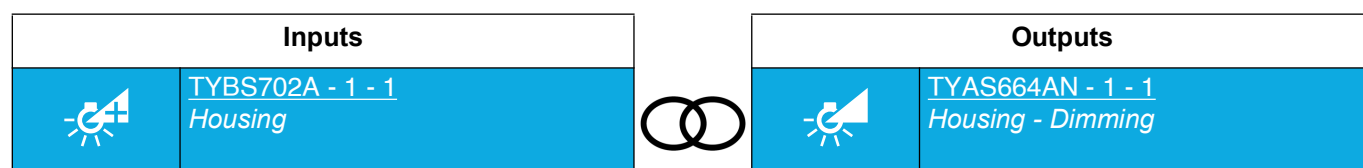
Activating the input by short presses switches on the light to the last level memorised.
Activating the input by long press increases the level of brightness.

- **Decrease dimming/OFF**: Decreases the output level.

Inputs			Outputs	
	TYBS702A - 1 - 1 *Housing*	⬭⬭		TYAS664AN - 1 - 1 *Housing - Dimming*
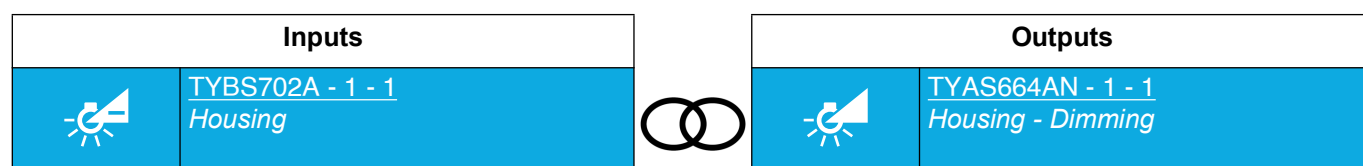
Activating the input by a short press switches off the light.
Activating the input by a long press decreases the level of brightness.

- **Increase/decrease dimming**: Varies the light with a single push-button.

Inputs			Outputs	
⟡	TYBS702A - 1 - 1 *Housing*	⬤⬤	⟡	TYAS664AN - 1 - 1 *Housing - Dimming*
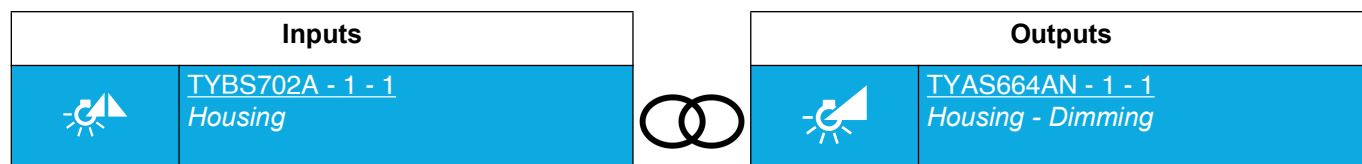
Activating the input by a short press switches between Switching the light on to the last level memorised and Switching the light off.
Activating the input by a long press increases or decreases the level of brightness.

Below are the outputs which can also have these functions:

⟡	Lighting	Controls the ON/OFF output for switching the light on and off. This procedure enables a same input to be connected to an ON/OFF output and to a dimming output.

It is also possible to make a link between 2 inputs. Below are the inputs which can also have these functions:

⟡	Increase/decrease dimming	Controls the dimming input for dimming the light (Only with TX511 and TXC511).

- **Dimming**: Varies the light with a defined brightness value.
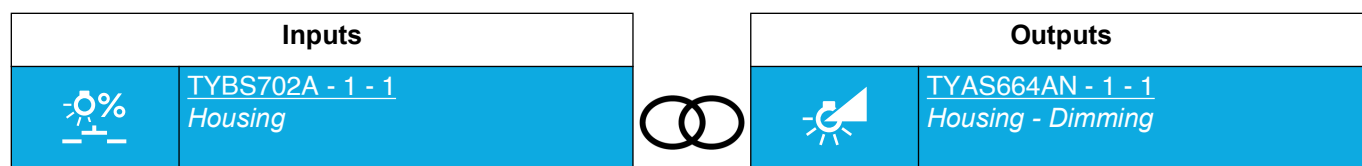
Inputs			Outputs	
⟡%	TYBS702A - 1 - 1 *Housing*	⬤⬤	⟡	TYAS664AN - 1 - 1 *Housing - Dimming*

Activating the input switches the light on to the brightness value defined.

Note: At the time the connection is made, the brightness value must be defined for the contact closure input.

**Select function**   ✕

Outputs selected :   1 ⟡

TYBS692F - 1 - 1 ⟡%   [Dimming   ⌄]   1 ⟡

                    Brightness   [100]
                    value 1 :

[**Link**]   [**Cancel**]

- **Dimming switch**: Varies the light with two brightness values defined according to the opening and closing of the input contact.

Inputs		Outputs	
-☀%-	TYBS702A - 1 - 1 *Housing*	-☀-	TYAS664AN - 1 - 1 *Housing - Dimming*

Closing input contact: turns on the light at the 1 brightness value.
Opening input contact: turns on the light at the 2 brightness value.

Note: At the time the connection is made, the brightness values must be defined for the contact closure input.

3.2.2.1 Dimming automatic control

- **Dimming automatic control PB**: Allows varying the light with a defined brightness value using Automatic control.

Inputs		Outputs	
-☀@-	TYBS702A - 1 - 1 *Housing*	-☀-	TYAS664AN - 1 - 1 *Housing - Dimming*

Activating the input switches the light on to the brightness value defined.

Note: At the time the connection is made, the brightness value must be defined for the contact closure input.

- - **Dimmer switch automatic control**: allows varying the light with two defined brightness values according to the opening and closing input contact using automatic control.

Inputs			Outputs	
	TYBS702A - 1 - 1 *Housing*			TYAS664AN - 1 - 1 *Housing - Dimming*

Closing input contact: turns on the light at the 1 brightness value.
Opening input contact: turns on the light at the 2 brightness value.

Note: At the time the connection is made, the brightness values must be defined for the contact closure input.

Note: For the function **Automatic control deactivation**, *see: Automatic control deactivation.*

3.2.3 Colour

The product supports control of the DALI "Colour Control" (DALI Device Type 8) equipment. Using appropriate DALI equipment and lighting sources enables the colour of a RGB(W) LED lamp to be controlled.

Scrolling colours allows you to select a pre-defined colour to be applied to the output.
In addition to white, the available color set is as follows:
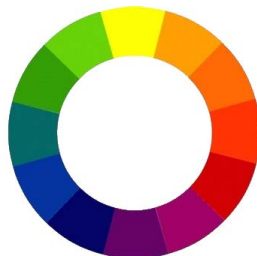
- **Colour scrolling forward**: enables clockwise colour scrolling.

Inputs			Outputs	
🎨	TYBS702A - 1 - 1 *Housing*	⬤⬤	🎨	TYAS664D - 1 - 1 *Housing - Dimming*
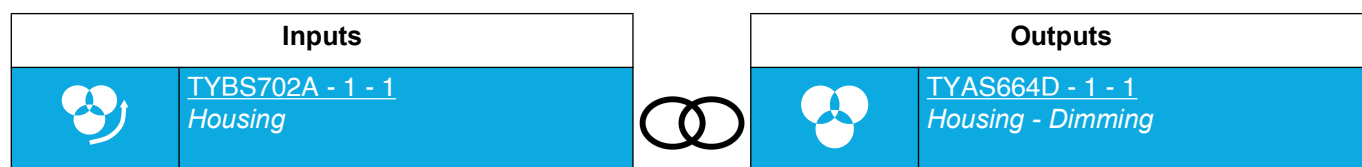
Prolonged closing of the input contact: forward colour scrolling

- **Colour scrolling backward**: enables anti-clockwise colour scrolling.

Inputs			Outputs	
🎨	TYBS702A - 1 - 1 *Housing*	⬤⬤	🎨	TYAS664D - 1 - 1 *Housing - Dimming*
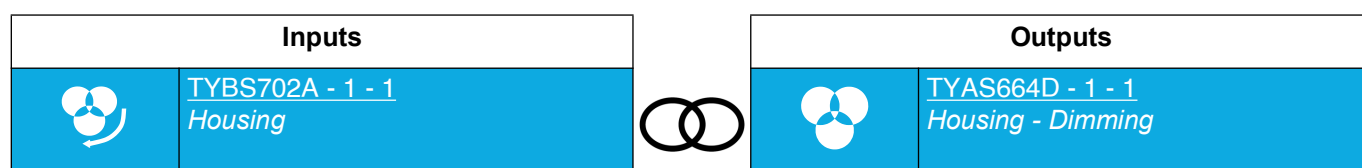
Prolonged closing of the input contact: rearward colour scrolling

3.2.4 Colour temperature
The product supports the control of the "Colour Control" DALI equipment (DALI Device Type 8) in the specific character "Tunable White (TW)". Using appropriate DALI equipment and lighting sources enables the colour temperature of a lamp to be controlled.

- **Colour temperature colder**: enables the colour temperature to be increased.

Inputs			Outputs	
🌡	TYBS702A - 1 - 1 *Housing*	⬤⬤	🎨	TYAS664D - 1 - 1 *Housing - Dimming*
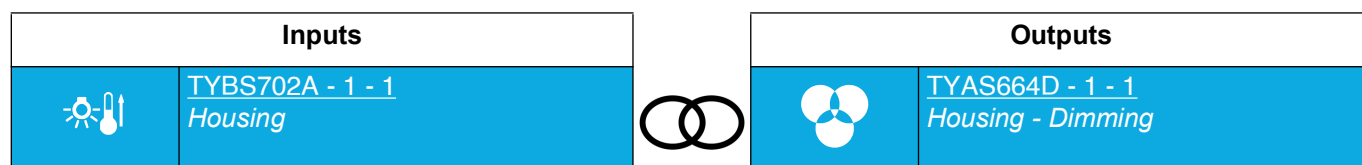
Prolonged closing of the input contact: colour temperature increase
Opening input contact: no action

- **Colour temperature warmer**: enables the colour temperature to be decreased.

Inputs		Outputs	
☀🌡	TYBS702A - 1 - 1 *Housing*	⚙	TYAS664D - 1 - 1 *Housing - Dimming*

Prolonged closing of the input contact: colour temperature decrease
Opening input contact: no action

3.2.5 Shutter/blind

Available functionalities			
▦▲	Blinds up	▤🗝	Priority up
▦▼	Blinds down	▤🗝	Priority down
▤	Shutter UP	📡	Wind alarm
▤	Shutter DOWN	☁	Rain alarm
↑↓	Toggle switch up/down	▤ⓐ	Automatic control shutter angle
↑↓	Up/down	▦ⓐ	Automatic control slat angle
↓↑	Down/up	▤▦ⓐ	Automatic control shutter and slat angle
↑	Switch up	▤▦ⓐ	Automatic control shutter position switch
↓	Down switch	▦ⓐ	Automatic control inter slat angle
stop ↑	Up/stop	▤▦ⓐ	Automatic control inter shutter and slat angle
stop ↓	Down/stop	▤	Central up
▤%	Shutter position	▤	Central down
▦%	Slat angle	↑↓	Central up/down
▤▦%	Shutter and slat angle	▤	Scene

|			
▤%	Shutter angle switch	⬛⤴	Scene switch
⫽%	Slat angle switch	ⓐ	Automatic control deactivation
▤⫽%	Shutter and slat angle switch	ⓐ	Deactivation Automatic control push-button (1)

Note: *For the function **Automatic control deactivation**, see:* <u>Automatic control deactivation</u>*.*
*For the function **Scene** and **Switch scene**, see:* <u>Scene</u>*.*

3.2.5.1 Up/down

- **Blinds up**: Allows to raise or stop a blind or tilt the blind slats.

Inputs		Outputs	
⬓▲	TYBS702A - 1 - 1 *Housing*	⬓	TYAS608D - 1 - 1 *Housing - Shutter*
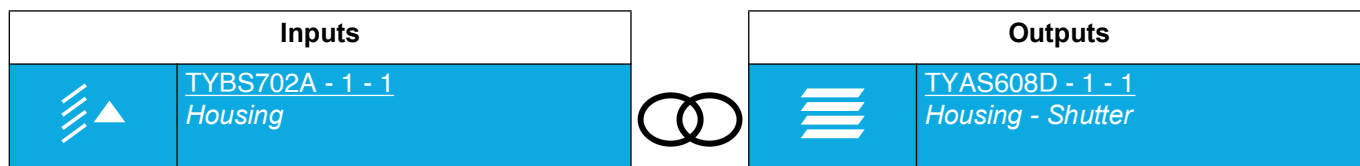
Activating the input by a short press briefly closes the Up output contact (function direction of a blind's slats).
Activating the input by a long press closes the Up output contact for a length of time (function raising a rolling shutter or a blind).

Note: If a brief input contact occurs during the delay, the output contact opens (stop function).

- **Blinds down**: Allows to lower or stop a blind or tilt the blind blades.

Inputs		Outputs	
⬓▼	TYBS702A - 1 - 1 *Housing*	⬓	TYAS608D - 1 - 1 *Housing - Shutter*
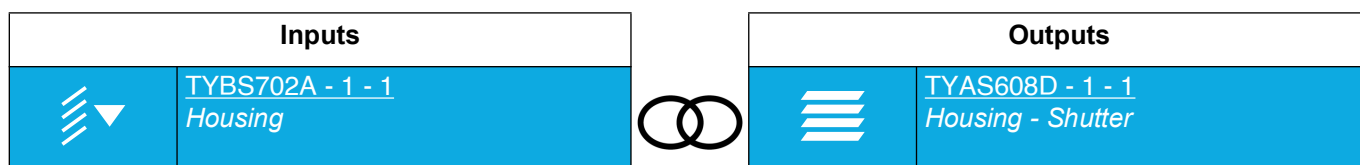
Activating the input by a short press briefly closes the Down output contact (function direction of a blind's slats).
Activating the input by a long press closes the Down output contact for a length of time (function lowering a rolling shutter or a blind).

Note: If a brief input contact occurs during the delay, the output contact opens (stop function).

- **Shutter UP**: Allows to raise or stop a rolling shutter.

Inputs		Outputs	
⬓	TYBS702A - 1 - 1 *Housing*	⬓	TYAS608D - 1 - 1 *Housing - Shutter*
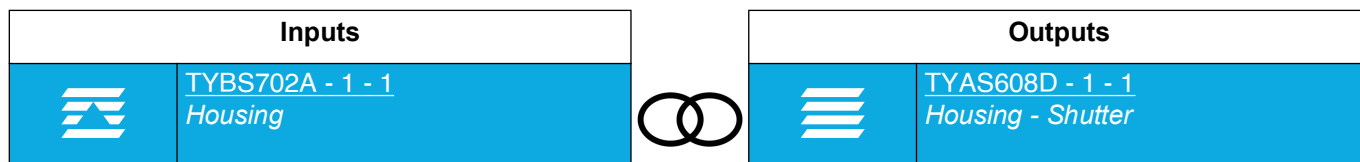
Activating the input closes the Up output contact for a length of time (function raising a rolling shutter or a blind).

Note: If a brief input contact occurs during the delay, the output contact opens (stop function).

- **Shutter DOWN**: Allows to lower or stop a rolling shutter.

Inputs		Outputs	
⬓	TYBS702A - 1 - 1 *Housing*	⬓	TYAS608D - 1 - 1 *Housing - Shutter*
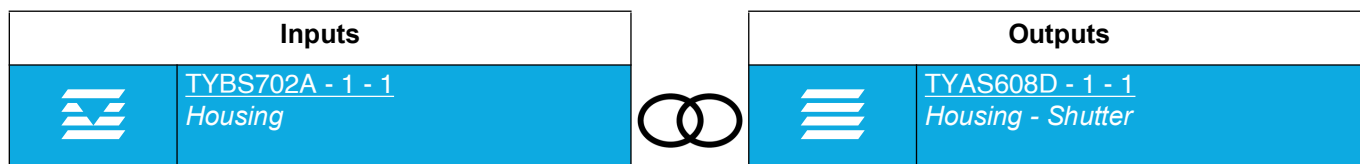
Activating the input closes the Down output contact for a length of time (Function Lowering a rolling shutter or a blind).

Note: If a brief input contact occurs during the delay, the output contact opens (stop function).

-   **Toggle switch up/down**: Used to raise, lower or stop a rolling shutter or blind using a single push-button.

Inputs		Outputs	
↑↓	TYBS702A - 1 - 1 *Housing*	▤	TYAS608D - 1 - 1 *Housing - Shutter*
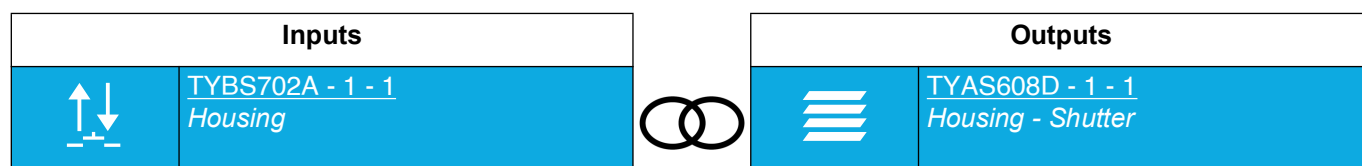
Successive presses of the push-button allows the function to be changed according to the following sequence:
1st press: Down (Delayed closure of the Down output)
2nd press: Stop (Opening of output contacts)
3rd press: Up (Delayed closure of the Up output)
4th press: Stop (Opening of output contacts)

The timer modes and durations can be configured at the shutter output product level.

Note: It is not possible to control the tilting of the slats.

-   **Up/down**: Allows to raise or lower a rolling shutter or a blind using a switch.
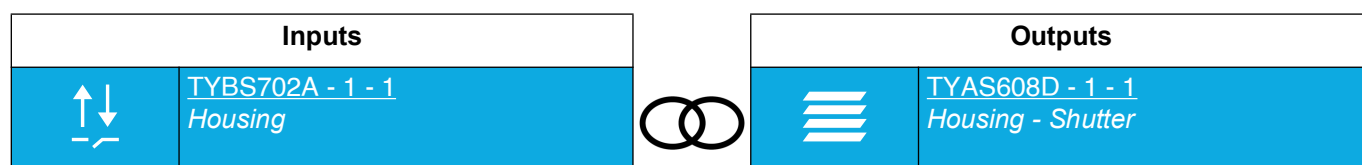
Inputs		Outputs	
↑↓	TYBS702A - 1 - 1 *Housing*	▤	TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of the raise output contact.
Opening input contact: delayed closing of the lowering output contact.

-   **Down/up**: Allows to raise or lower a rolling shutter or a blind using a switch.
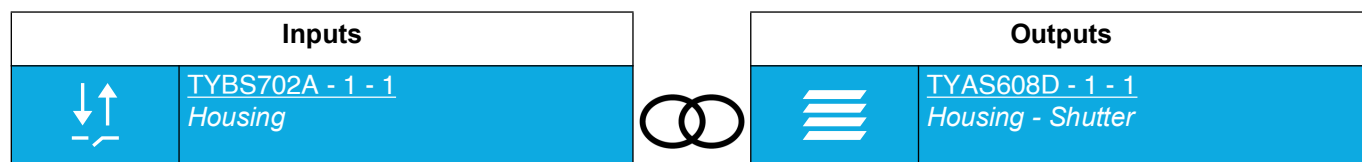
Inputs		Outputs	
↓↑	TYBS702A - 1 - 1 *Housing*	▤	TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of the lowering output contact.
Opening input contact: delayed closing of the raise output contact.

-   **Switch up**: Allows to raise a rolling shutter or a blind using a switch.
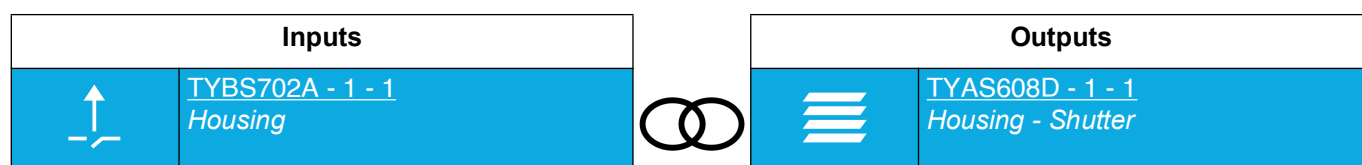
Inputs		Outputs	
↑	TYBS702A - 1 - 1 *Housing*	▤	TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of the raise output contact.
Opening input contact: no action.

-   **Down switch**: Allows to lower a rolling shutter or a blind using a switch.
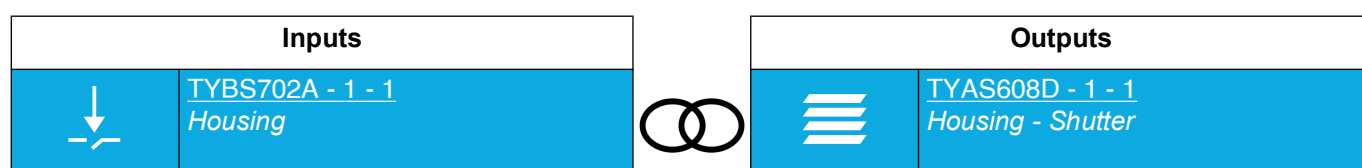
Inputs		Outputs	
↓	TYBS702A - 1 - 1 *Housing*	▤	TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of the lowering output contact.
Opening input contact: no action.

- **Up/stop**: Allows to raise or stop a rolling shutter or a blind using a switch.
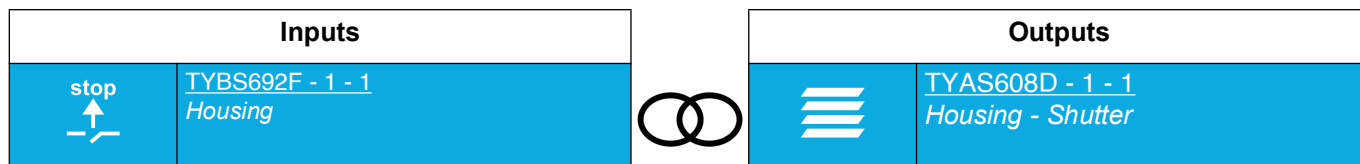
Inputs		Outputs	
stop	TYBS692F - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of the raise output contact.
Opening input contact: opening an output contact (stop function).

- **Down/stop**: Allows to lower or stop a rolling shutter or a blind using a switch.
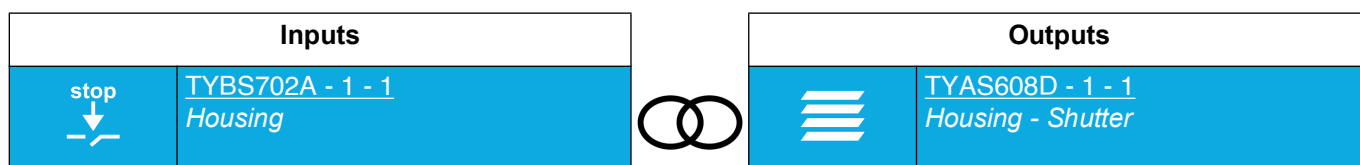
Inputs		Outputs	
stop	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of the lowering output contact.
Opening input contact: opening an output contact (stop function).

3.2.5.2 Shutter or blind angle

- **Shutter position**: Allows to angle a rolling shutter or blind to the desired height according to a value in %.
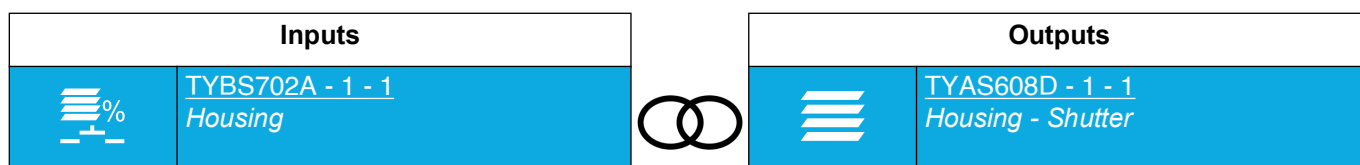
Inputs		Outputs	
%	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Activating the input closes the output contacts for positioning the shutter or blind for a length of time.

Note: When the connection is made, the value in % of the shutter angle must be defined (0%: upper position,100%: lower position).

- **Slat angle**: Allows positioning shutter slats according to a value in %.

Inputs		Outputs	
%	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Activating the input closes the output contacts for tilting the blind slats for a length of time.

Note: When the connection is made, the value in % of the shutter slat angle must be defined (0%: slats open,100%: slats closed).

- **Shutter and slat angle**: Allows positioning a rolling shutter or blind at the desired height and the blind slats according to a value in %.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Activating the input closes the output contacts for positioning the shutter or blind and for tilting the blind slats for a length of time.

Note: When the connection is made, the value in % for the shutter position must be defined (0%: high position, 100% low position) and the value in % of the blind slat position (0%: slats open,100%: slats closed).

- **Shutter angle switch**: Allows positioning a rolling shutter or blind at the desired height according to a value in % using a switch.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of output contacts for position 1 of the shutter or blind.
Opening input contact: delayed closing of output contacts for position 2 of the shutter or blind.

Note: When the connection is made, values must be defined in % for shutter positions 1 and 2 (0%: upper position,100%: lower position).

- **Slat angle switch**: Allows positioning blind slates according to a value in % using a switch.

Inputs		Outputs	
%	TYBS702A - 1 - 1 *Housing*	▤	TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of output contacts for position 1 of the blind slats.
Opening input contact: delayed closing of output contacts for position 2 of the blind slats.

Note: When the connection is made, values must be defined in % for blind slat positions 1 and 2 (0%: slats open,100%: slats closed).

- **Shutter and slat angle switch**: Allows positioning a rolling shutter or a blind at the desired height and the blind slates according to a value in % using a switch.
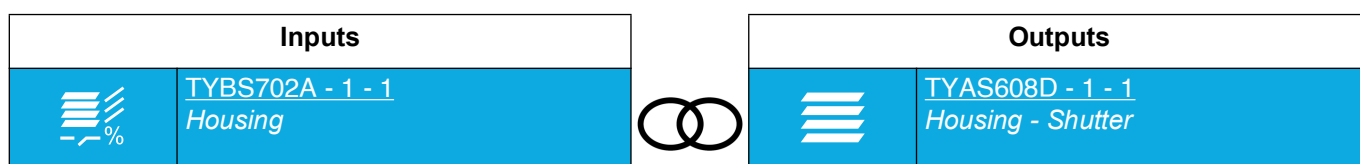
Inputs		Outputs	
▤%	TYBS702A - 1 - 1 *Housing*	▤	TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of output contacts for position 1 of the shutter or blind and for position 1 for blind slats.
Opening input contact: delayed closing of output contacts for position 2 of the shutter or blind and for position 2 for blind slats.

Note: When the connection is made, values must be defined in % for shutter positions 1 and 2 (0%: high position, 100%: low position) and values in % for blind slats positions 1 and 2 (0%: slats open,100%: slats closed).

:hager

Select function ✕

Outputs selected : 1 ≣

TYBS692F - 1 - 1 ≣ | Position shutter and slat switch ⌄ | 1 ≣

Position 1 (0-100%):	Position 2 (0-100%):	Slat angle 1 (0-100%):	Slat angle 2 (0-100%):
100	0	100	0

Link	Cancel

Outputs selected : 1 ≣

3.2.5.3 Priority

The Priority function forces the control of a shutter.
This function the priority or priority cancellation controls to be issued.
No other command is taken into account when the Priority is active. Only priority or alarm cancellation commands will be taken into account.

- **Priority up**: Allows forcing a rolling shutter or blind to raise.

Inputs		Outputs
TYBS702A - 1 - 1 *Housing*	⊙⊙	TYAS608D - 1 - 1 *Housing - Shutter*
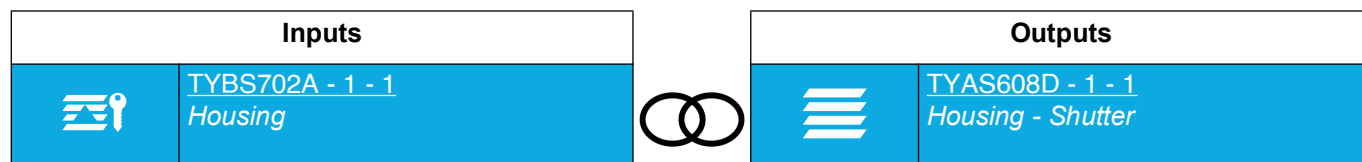
Closing input contact: activation priority and delayed closing of the raise output contact.
Opening input contact: end of the priority.

- **Priority down**: Allowing forcing a rolling shutter or blind to lower.

Inputs		Outputs
TYBS702A - 1 - 1 *Housing*	⊙⊙	TYAS608D - 1 - 1 *Housing - Shutter*
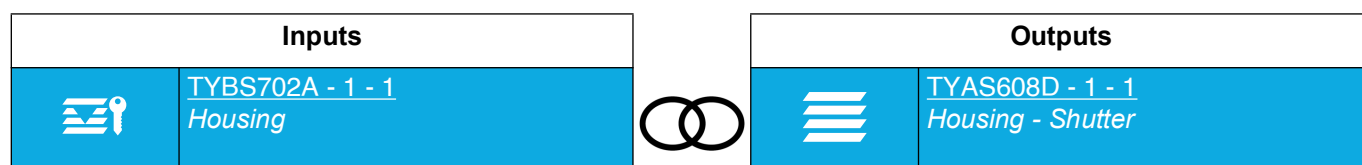
Closing input contact: activation of priority and delayed closing of the lowering output contact.
Opening input contact: end of the priority.

3.2.5.4 Alarm

The Alarm function issues alarms on a cyclical basis to the bus from automations (anemometer, rain detector, twilight switch etc.)

- **Wind alarm**: Allows to set the rolling shutter or blind in a defined position when the alarm is activated.

Inputs		Outputs
TYBS702A - 1 - 1 *Housing*	⊙⊙	TYAS608D - 1 - 1 *Housing - Shutter*
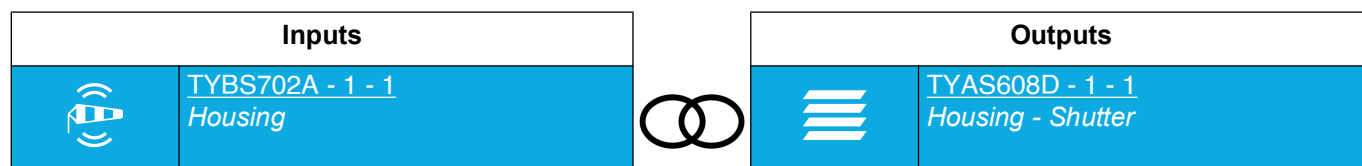
Closing input contact: wind alarm activation.
Opening input contact: alarm end.

The rolling shutter or blind angle is defined through a setting.

Wind Alarm level:	No Wind alarm ⌄
Position on wind alarm:	Not active ⌄

Parameter	Description	Value
Position on wind alarm	During the wind alarm, the shutter/blind output:	
	Not changed	**Not active***
	Closes the Up contact	Up
	Closes the down contact	Down

*Note: The setting **Wind alarm level** is not taken into account with this type of connection.*

- **Rain alarm**: Allows to set the rolling shutter or blind in a defined position when the alarm is activated.

Inputs	Outputs
TYBS702A - 1 - 1 *Housing*	TYAS608D - 1 - 1 *Housing - Shutter*
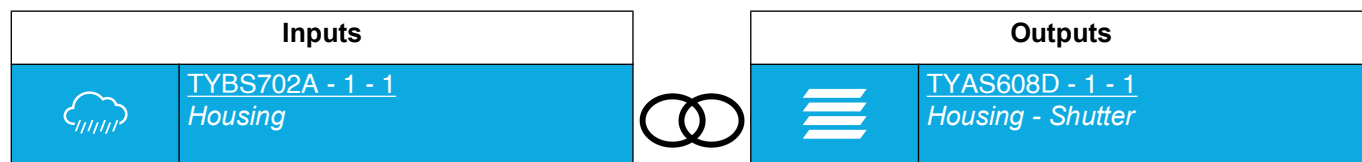
Closing input contact: rain alarm activation.
Opening input contact: alarm end.

The rolling shutter or blind angle is defined through a setting.

Rain Alarm:	No
Position on rain alarm:	Not active

Parameter	Description	Value
Position on rain alarm	Defines the status of the shutter output on receipt of the rain alarm.	**Not active***
		Up
		Down

*Note: The setting **rain alarm** is not taken into account with this type of connection.*

3.2.5.5 Shutter/blind automatic control

- **Automatic control shutter angle**: Allows positioning a rolling shutter or blind to the desired height according to a value in % using automatic control.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Activating the input closes the output contacts for positioning the shutter or blind for a length of time.

Note: When the connection is made, the value in % of the shutter angle must be defined (0%: upper position,100%: lower position).

- **Automatic control slat angle**: Allows positioning blind slats according to a value in % using automatic control.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Activating the input closes the output contacts for tilting the blind slats for a length of time.

Note: When the connection is made, the value in % of the shutter slat angle must be defined (0%: slats open,100%: slats closed).

- **Automatic control shutter and slat angle**: Allows positioning a rolling shutter or blind to the desired height and blind slats according to a value in % using automatic control.

Inputs		Outputs
TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Activating the input closes the output contacts for positioning the shutter or blind and for tilting the blind slats for a length of time.

Note: When the connection is made, the value in % for the shutter position must be defined (0%: high position, 100% low position) and the value in % of the blind slat position (0%: slats open,100%: slats closed).

Select function   ✕

Outputs selected :   1 ▤

TYBS692F - 1 - 1 ▤   Position shutter and slat automatic control ⌄   1 ▤

Position 1
(0-100%):   *100*

Slat angle
1 (0-
100%):   *100*

| Link | Cancel |

- **Automatic control shutter position switch**: Allows positioning a rolling shutter or blind to the desired height according to a value in % using a switch and automatic control.

Inputs		Outputs
TYBS702A - 1 - 1 *Housing*		TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of output contacts for position 1 of the shutter or blind.
Opening input contact: delayed closing of output contacts for position 2 of the shutter or blind.

Note: When the connection is made, values must be defined in % for shutter positions 1 and 2 (0%: upper position,100%: lower position).

Select function   ✕

Outputs selected :   1 ▤

TYBS692F - 1 - 1 ▤   Position shutter switch automatic control ⌄   1 ▤

Position 1
(0-100%):   *100*

Position 2
(0-100%):   *0*

| Link | Cancel |

- **Automatic control inter slat angle**: Allows positioning blind slats according to a value in % using a switch and automatic control.

Inputs			Outputs	
⬚	TYBS702A - 1 - 1 *Housing*	⊙⊙	⬚	TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of output contacts for position 1 of the blind slats.
Opening input contact: delayed closing of output contacts for position 2 of the blind slats.

Note: When the connection is made, values must be defined in % for blind slat positions 1 and 2 (0%: slats open,100%: slats closed).

Select function   ✕

Outputs selected :   1 ⬚

TYBS692F - 1 - 1 ⬚   [Position slat switch automatic control   ▾]   1 ⬚

Slat angle 1 (0-100%):   *100*   Slat angle 2 (0-100%):   *0*

[Link]   [Cancel]

- **Automatic control inter shutter and slat angle**: Allows positioning a rolling shutter or blind to the desired height and blind slats according to a value in % using a switch or automatic control
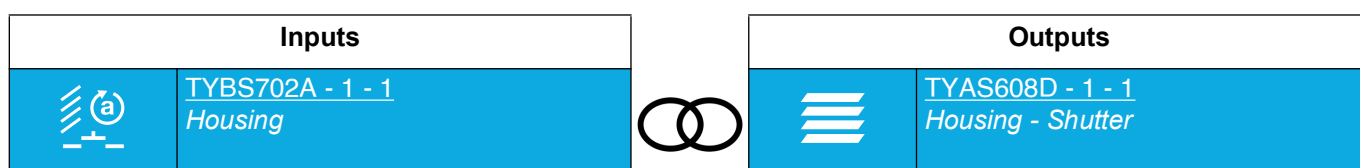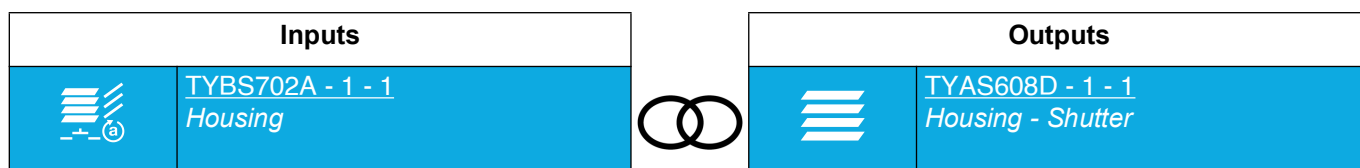.

Inputs			Outputs	
⬚	TYBS702A - 1 - 1 *Housing*	⊙⊙	⬚	TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of output contacts for position 1 of the shutter or blind and for position 1 for blind slats.
Opening input contact: delayed closing of output contacts for position 2 of the shutter or blind and for position 2 for blind slats.

Note: When the connection is made, values must be defined in % for shutter positions 1 and 2 (0%: high position, 100%: low position) and values in % for blind slats positions 1 and 2 (0%: slats open,100%: slats closed).

Select function   ✕

Outputs selected :   1 ⬚

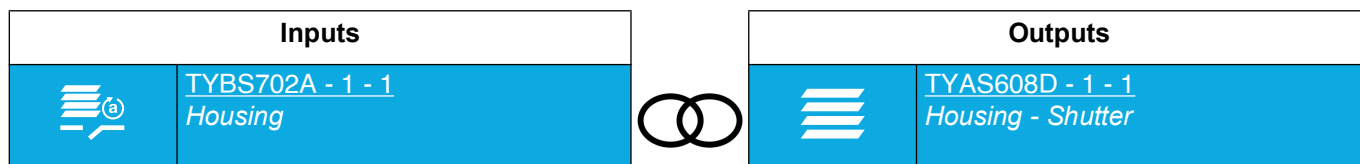TYBS692F - 1 - 1 ⬚   [Position shutter and slat switch automatic control   ▾]   1 ⬚

Position 1 (0-100%):   *100*   Position 2 (0-100%):   *0*   Slat angle 1 (0-100%):   *100*   Slat angle 2 (0-100%):   *0*

[Link]   [Cancel]

3.2.5.6 General up/down

The **general up/down** function is used to open or close all of the shutters or blinds. Unlike the Up/Down function, it does not send the status indication of the controlled outputs. This prevents KNX bus saturation when switching outputs simultaneously.

It is recommended to use this function when there are more than 20 shutters/blinds.

- **General up**: Used to raise or stop a rolling shutter or blind unit.
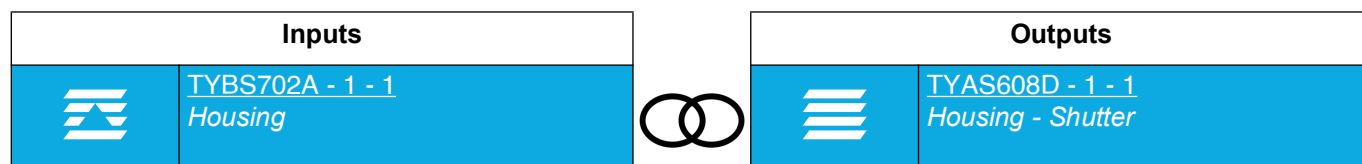
Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TYAS608D - 1 - 1 *Housing - Shutter*

Activating the input by a long press closes the Up output contact for a length of time (Function Raising a rolling shutter or a blind).

Note: If a brief input contact occurs during the delay, the output contact opens (Stop Function).

- **General down**: Used to lower or stop a rolling shutter or blind unit.
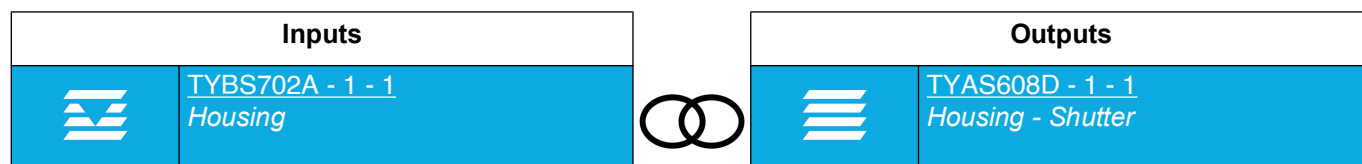
Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TYAS608D - 1 - 1 *Housing - Shutter*

Activating the input by a long press closes the Down output contact for a length of time (Function Lowering a rolling shutter or a blind).

Note: If a brief input contact occurs during the delay, the output contact opens (Stop Function).

- **General up/down**: Used to raise or lower a rolling shutter or blind via a switch.
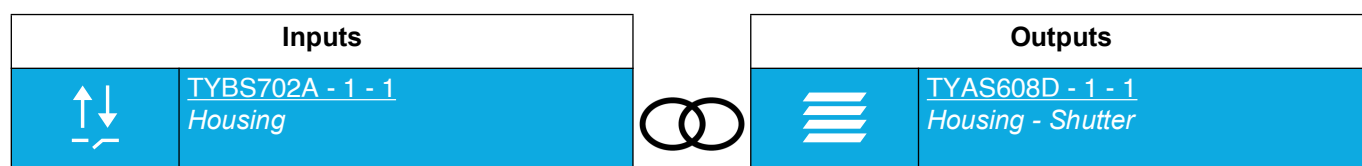
Inputs	
	TYBS702A - 1 - 1 *Housing*

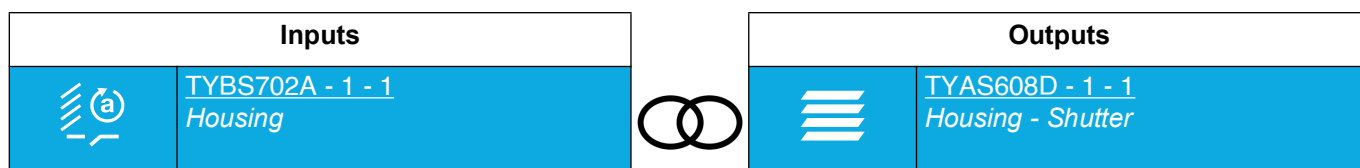| Outputs	
	TYAS608D - 1 - 1 *Housing - Shutter*

Closing input contact: delayed closing of the raise output contact.
Opening input contact: delayed closing of the lowering output contact.

3.2.6 Heating/Cooling

	Available functionalities			
	Comfort mode			Fenster
	Eco mode			Heating/cooling off
	Standby mode			Heating/cooling
	Protection mode			Comfort mode automatic control
	Auto mode			Eco mode automatic control
	Switch mode			Standby mode automatic control
	Comfort/eco mode			Protection mode automatic control
	Comfort/standby mode			Switch mode automatic control
	Protection/Auto mode			Scene
	Comfort priority			Scene switch
	Protection priority			Automatic control deactivation
	Timed comfort			Deactivation Automatic control push-button (1)

Note: *For the function **Automatic control deactivation**, see: Automatic control deactivation.*
*For the function **Scene** and **Switch scene**, see: Scene.*

3.2.6.1 Setpoint selection

The heating command operates according to a heating instruction.

- **Comfort mode**: Activates Comfort mode for the heating.
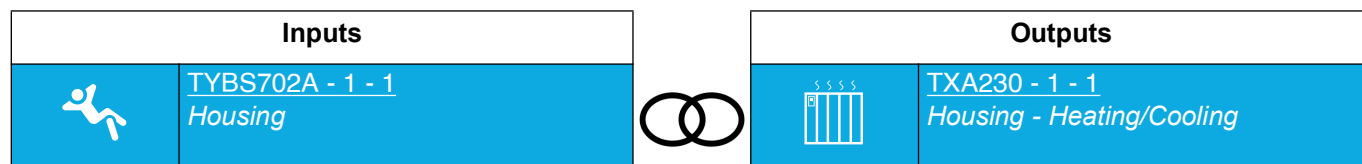
Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates Comfort mode.
The effect of the command is cancelled by any other mode activation command.

- **Eco mode**: Activates Eco mode for the heating.
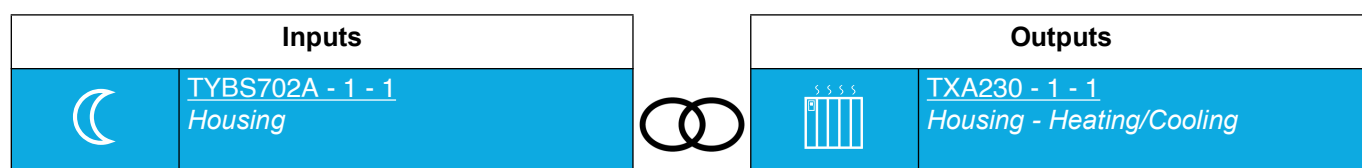
Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates Eco mode.
The effect of the command is cancelled by any other mode activation command.

- **Standby mode**: Activates StandBy mode for the heating.
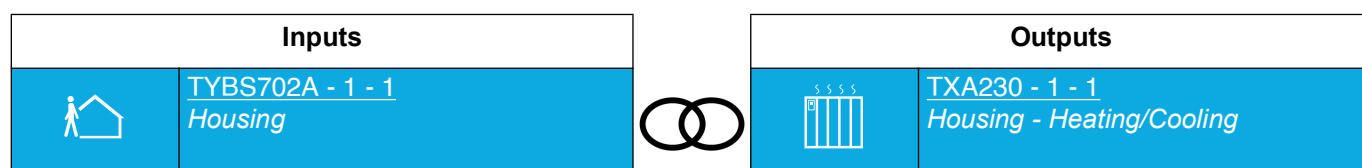
Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates StandBy mode.
The effect of the command is cancelled by any other mode activation command.

- **Protection mode**: Activates Protection mode for the heating.
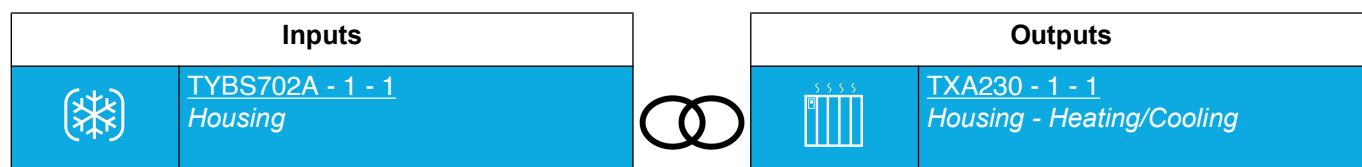
Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates Protection mode.
The effect of the command is cancelled by any other mode activation command.

- **Auto mode**: Used to activate the Auto mode for the heating.
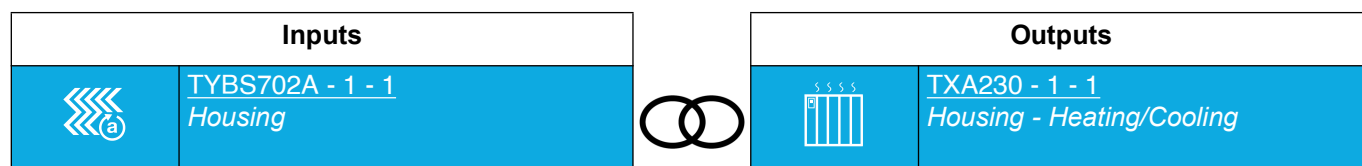
Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates the Auto mode.
The effect of the command is cancelled by any other mode activation command.

- **Switch mode**: Switches between 2 heating modes.
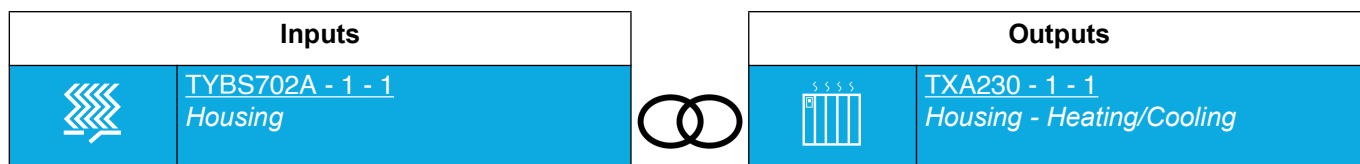
Inputs		Outputs	
⧈	TYBS702A - 1 - 1 *Housing*	⧈	TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates heating mode 1.
Opening the input contact activates heating mode 2.
The effect of the command is cancelled by any other mode activation command.

Note: At the time of the connection, one must define the heating mode for input contact closing and opening.

Select function   ✕

Outputs selected :

TYBS692F - 1 - 1 ⧈ | Mode switch   ▾ | 1 ⧈

Function 1 | Comfort   ▾   Function 2 | Night setpoint ▾
HVAC: HVAC:

| Link | Cancel |

Heating mode available: **Auto**, **Comfort**, **Standby**, **Night setpoint** and **Freeze protection**.

*Note: By default, the input operates like an NO contact (Normally open). If the parameter **Inverted** is validated, the input operates like an NC contact (Normally closed). This is valid for all heating modes.*

- **Comfort/eco mode**: Used to toggle between Comfort mode and Eco mode for the heating.
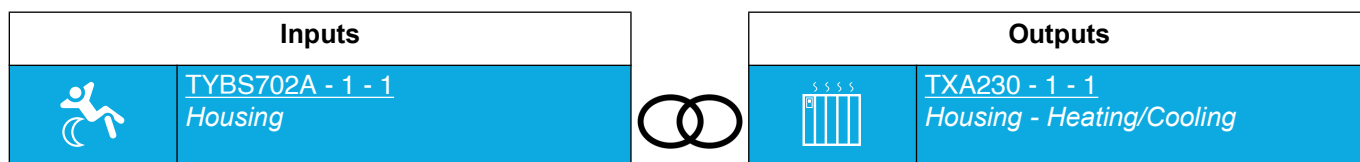
Inputs		Outputs	
🧍	TYBS702A - 1 - 1 *Housing*	⧈	TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates Comfort mode.
Opening the input contact activates the Eco mode.
The effect of the command is cancelled by any other mode activation command.

- **Comfort/standby mode**: Used to toggle between Confort mode and Standby mode for the heating.
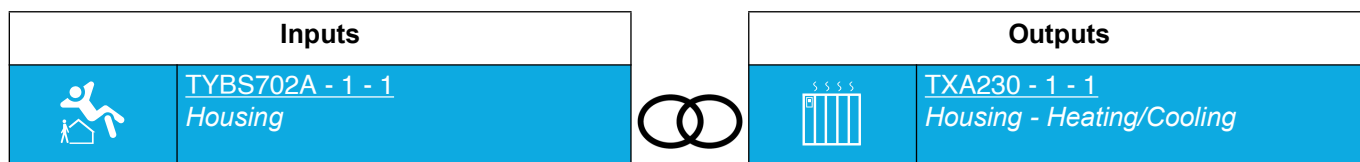
Inputs		Outputs	
🧍	TYBS702A - 1 - 1 *Housing*	⧈	TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates Comfort mode.
Opening the input contact activates the Standby mode.
The effect of the command is cancelled by any other mode activation command.

- **Protection/Auto mode**: Used to toggle between the Protection mode and the Auto mode for the heating.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TXA230 - 1 - 1 *Housing - Heating/Cooling*
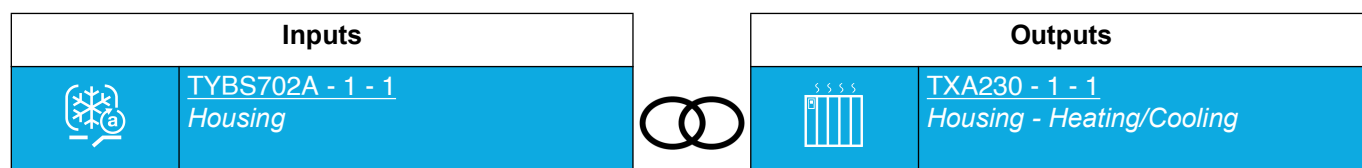
Closing the input contact activates Protection mode.
Opening the input contact activates the Auto mode.
The effect of the command is cancelled by any other mode activation command.

Below are the outputs which can also have these functions:

	HVAC	Enables control of all heating zones.

It is also possible to make a link between 2 inputs. Below are the inputs which can also have these functions:

	HVAC control	Enables control of heating by zone.
	Setpoints heating	Enables the heating mode to be sent to the thermostat.

3.2.6.2 Priority

The Priority function forces a heating mode.
This function the priority or priority cancellation controls to be issued.
No other command is taken into account when the Priority is active. Only priority or alarm cancellation commands will be taken into account.

- **Comfort priority**: Activates and maintains Comfort mode.

Inputs		Outputs	
⛹	TYBS702A - 1 - 1 *Housing*	🏠	WKT660 - 1 - 9 *Housing - Heating/Cooling*
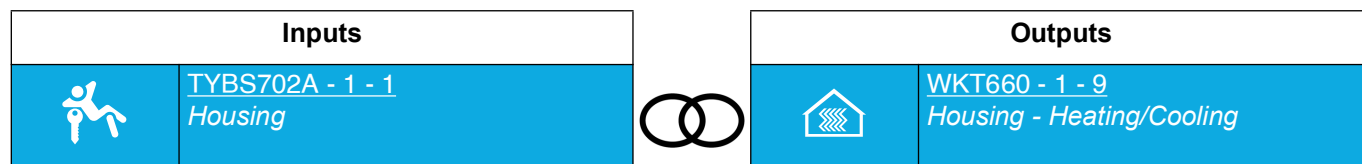
Closing the contact activates and maintains Comfort mode.
Closing the contact cancels the priority and returns to the usually active mode.

- **Protection priority**: Activates and maintains Protection mode.
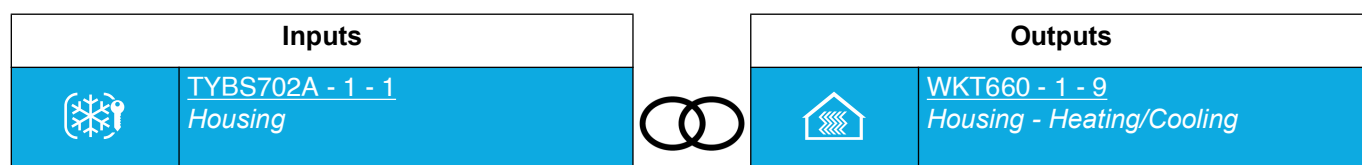
Inputs		Outputs	
❄	TYBS702A - 1 - 1 *Housing*	🏠	WKT660 - 1 - 9 *Housing - Heating/Cooling*

Activating the input forces the output to OFF.
Successive activation switches between OFF priority and priority cancellation.

It is also possible to make a link between 2 inputs. Below are the inputs which can also have these functions:

✋	Setpoints heating	Forces the heating mode for the thermostat.

3.2.6.3 Timed comfort

The **timed-controlled comfort** function activates the comfort mode at the thermostat level for a fixed period of time.
This period of time, defined at the thermostat level, is set to 1 h.
A short press on the push-button restarts the timer. The timer can be interrupted before the end with a long press.
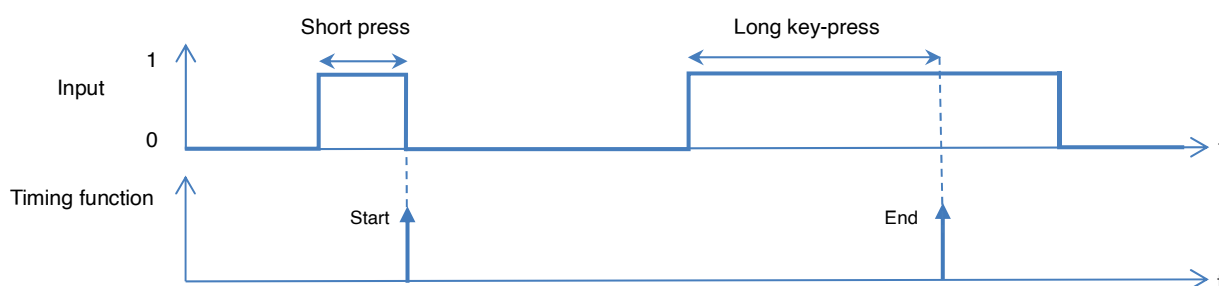
To configure this function, the link is established between 2 inputs:

Inputs	
	TYBS702A - 1 - 1 *Housing*
	WYT62x - 1 - 5 *Housing*

Activating the input with a short press activates the Comfort mode for a fixed period of time. When the timer is active, activating the input with a long press results in a return to the normally active mode.
At the end of the time delay, the system returns to the normally active mode.
The effect of the command is cancelled by any other mode activation command.

3.2.6.4 Windows contact

The devices have different possibilities to switch to Protection/Auto mode. This mode can be activated via a window contact.

- Links
  - **Windows contact**: The open and/or closed status of a window is sent to the thermostat.

Inputs	
	TYBS702A - 1 - 1 *Housing*
	TRC301B - 1 - 1 *Housing*

It is used to indicate the position of the window.
0 = Window closed: Auto mode
1 = Window open: Protection mode

3.2.6.5 Heating/cooling off

The **heating-cooling stop** function activates the protection mode for the heating and cooling according to the mode used.

To configure this function, the link is established between 2 inputs:

Inputs
❄ stop — TYBS702A - 1 - 1 *Housing*
✋ — WYT62x - 1 - 5 *Housing*

Closing the input contact activates the protection mode whether in heating or cooling mode.
Opening the input contact results in a return to the normally active mode.

The effect of the command is cancelled by any other mode activation command.

3.2.6.6 Heating/Cooling

- **Heating/Cooling**: Enables switching between heating mode and cooling mode.
To do so, it is necessary to make a connection between two inputs.

Inputs
❄ — TYBS702A - 1 - 1 *Housing*
✋ — TX460 - 1 - 5 Housing

Closing the input contact activates the heating mode.
Opening the input contact activates the cooling mode.
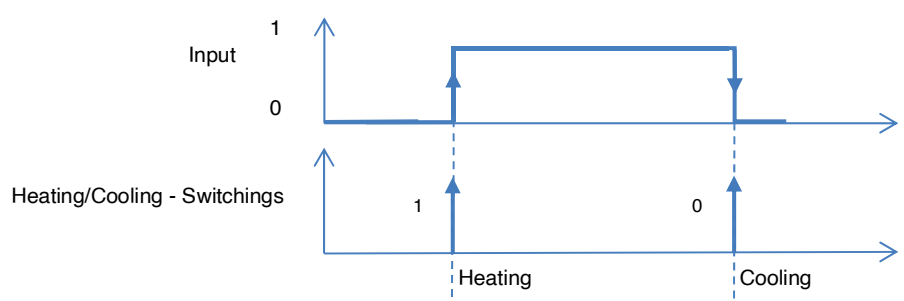
3.2.6.7 Heating automatic control

The Automatic control function enables the heating mode to be controlled in parallel to the standard control. An additional command object (Automatic control deactivation) is used to activate or deactivate Automatic control.

- **Comfort mode automatic control**: Activates Comfort mode for heating using automatic control.

Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates Comfort mode.
The effect of the command is cancelled by any other mode activation command.

- **Eco mode automatic control**: Activates Eco mode for heating using automatic control.
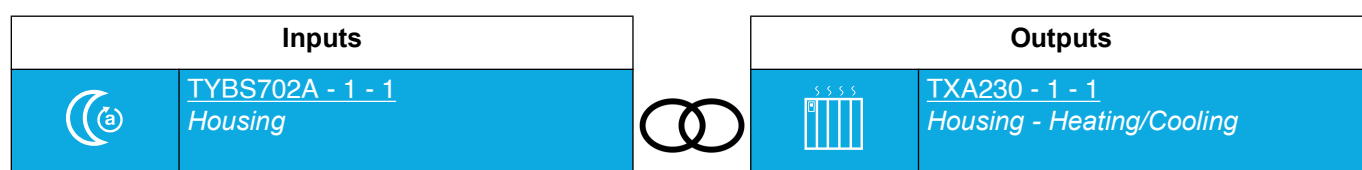
Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates Eco mode.
The effect of the command is cancelled by any other mode activation command.

- **Standby mode automatic control**: Activates StandBy mode for the heating using automatic control.

Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates StandBy mode.
The effect of the command is cancelled by any other mode activation command.

- **Protection mode automatic control**: Activates Protection mode for heating using automatic control.

Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates Protection mode.
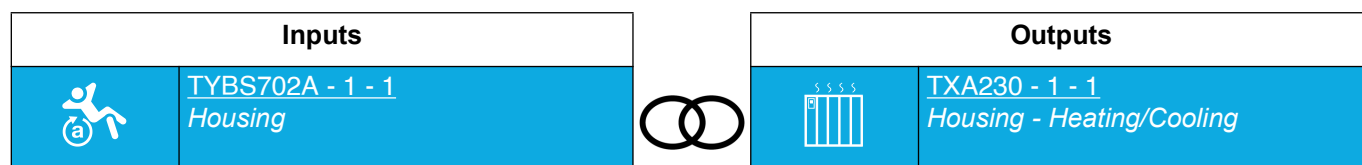The effect of the command is cancelled by any other mode activation command.

- **Switch mode automatic control**: Switches between 2 heating modes using automatic control.

Inputs	
	TYBS702A - 1 - 1 *Housing*

Outputs	
	TXA230 - 1 - 1 *Housing - Heating/Cooling*

Closing the input contact activates heating mode 1.
Opening the input contact activates heating mode 2.

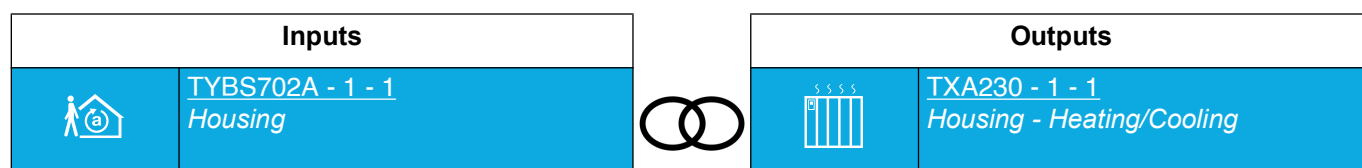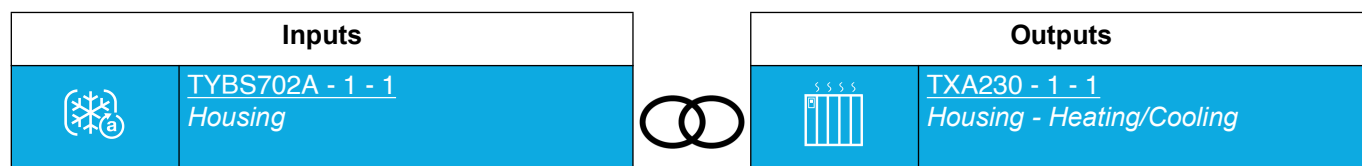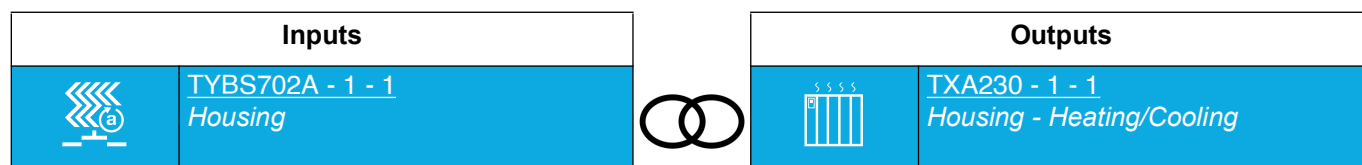The effect of the command is cancelled by any other mode activation command.

Note: At the time of the connection, one must define the heating mode for input contact closing and opening.

Heating mode available: **Auto**, **Comfort**, **Standby**, **Night setpoint** and **Freeze protection**.

*Note: By default, the input operates like an NO contact (Normally open). If the parameter **Inverted** is validated, the input operates like an NC contact (Normally closed). This is valid for all heating modes.*

Below are the outputs which can also have these functions:

	HVAC	Enables control of all heating zones.

It is also possible to make a link between 2 inputs. Below are the inputs which can also have these functions:

	HVAC control	Enables control of heating by zone.
	Setpoints heating	Enables the heating mode to be sent to the thermostat.

3.2.7 Metering

Available functionalities			
€	Tariff	📇	Scene
ⓐ	Automatic control deactivation	📇↹	Scene switch

Note: *For the function **Automatic control deactivation**, see: Automatic control deactivation.*
*For the function **Scene** and **Switch scene**, see: Scene.*

- **Tariff**: Sends T1/T2 tariff information.

Inputs		Outputs	
€	TYBS702A - 1 - 1 *Housing*	€	WKT660 - 1 - 1 *Housing - Metering*

Closing the input contact sends the tariff T2.
Opening the input contact sends the tariff T1.
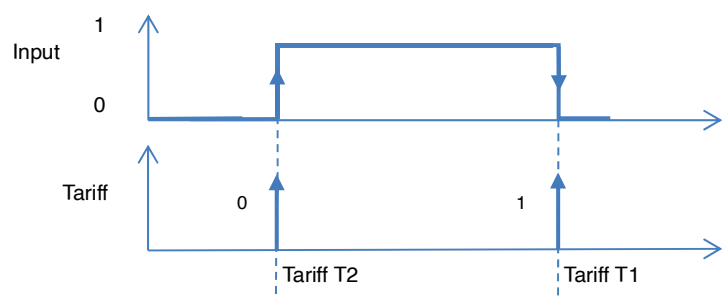
*Note: By default, the input operates like an NO contact (Normally open). If the parameter **Inverted** is validated, the input operates like an NC contact (Normally closed).*

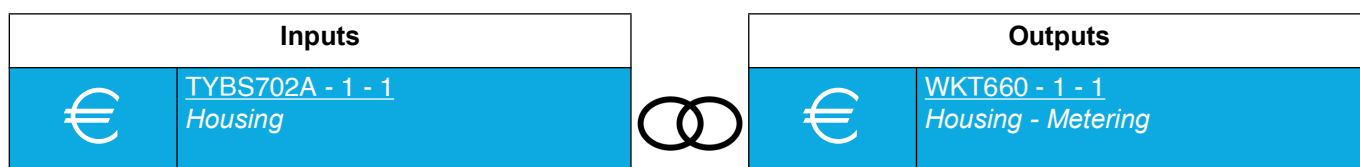It is also possible to make a link between 2 inputs. Below are the inputs which can also have these functions:

⚡	Energy	Transmits tariff information to the metering input.

3.2.8 Audio
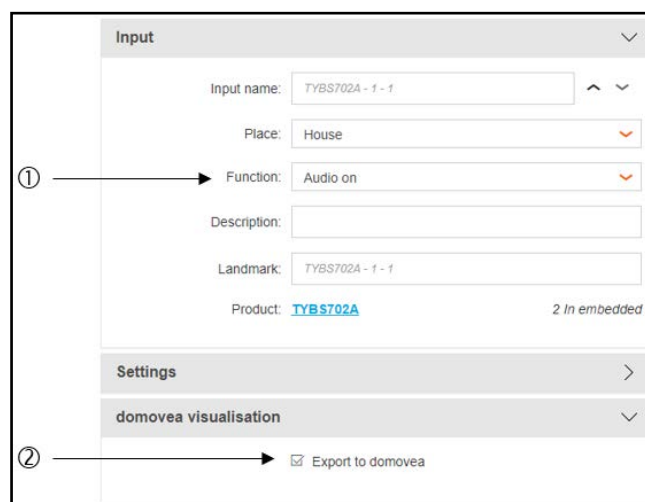
Available functionalities			
🔊	Audio on	🔊♡	Favorite
🔊✕	Audio off	▨	Scene
🔊⏻	Audio on/off	▨↱	Scene switch
🔊+	Volume +	ⓐ	Automatic control deactivation
🔊−	Volume -		

Note: For the function **Automatic control deactivation**, see: <u>Automatic control deactivation</u>.
For the function **Scene** and **Switch scene**, see: <u>Scene</u>.

The Audio function allows the control of various IoT devices for audio broadcasting. However, configuring this function differs from a traditional KNX output (lighting, shutters, etc.). It is not possible to create a direct link in easytool. You can only export the group address of the selected function to Domovea. The assignment to an Audio function can only be done in domovea via the group address.

To do this:

1. Select the input of the relevant product.

2. Open the input settings.

3. Choose an Audio function (1).

4. Check the box "Export to domovea" (2).

In domovea, the input will now be visible with a dedicated group address. You simply need to assign this group address to the object corresponding to the function of the IoT device.

3.2.9 Automatic control deactivation

The Automatic control function enables an output to be controlled in parallel to the standard control. An additional

command object (Automatic control deactivation) is used to activate or deactivate Automatic control.

- **Automatic control deactivation**: Deactivates automatic control.

Inputs		Outputs
TYBS702A - 1 - 1 *Housing*	⧉	TYAS608D - 1 - 1 *Housing - Lighting*

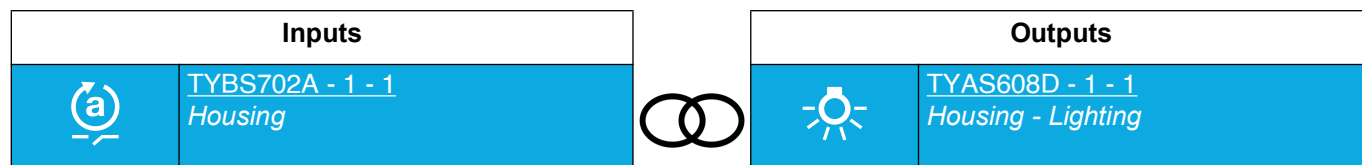Closing the input contact deactivates automatic control.
Opening the input contact activates automatic control.

*Note: By default, the input operates like an NO contact (Normally open). If the parameter **Inverted** is validated, the input operates like an NC contact (Normally closed).*

Below is the list of outputs where deactivation of automatic control is possible.

	Lighting		Dimming
	Shutter/blind		Shading control

Deactivating automatic control is also possible on the input.

	Setpoints heating

3.2.9.1 Scene

This function enables scenes to be saved or selected. These concern different types of output (lighting, blind, shutter, heating) to create ambiances or scenarios (leaving scenario, reading ambiance etc.).

- **Scene**: The scene is activated by pressing the push-button.

Inputs		Outputs
TYBS702A - 1 - 1 *Housing*	⧉	TYAS608D - 1 - 1 *Housing - Lighting*
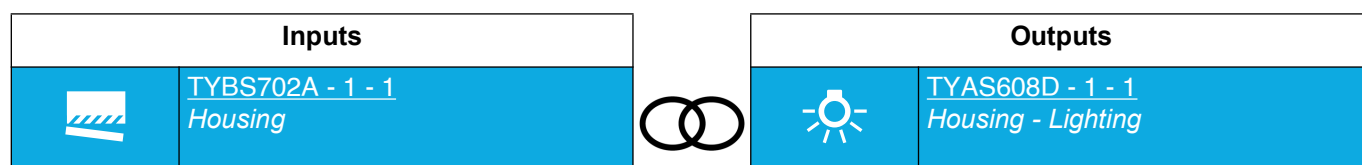
Activating the input activates the scene.

Note: At the time the connection is made, the scene number must be defined for the closing input contact.

*Note: By default, the input operates like an NO contact (Normally open). If the parameter **Inverted** is validated, the*

input operates like an NC contact (Normally closed).

- **Scene switch**: The scene is activated according to the closing or opening input contact.

Inputs			Outputs	
	TYBS702A - 1 - 1 *Housing*	⬤⬤		TYAS608D - 1 - 1 *Housing - Lighting*
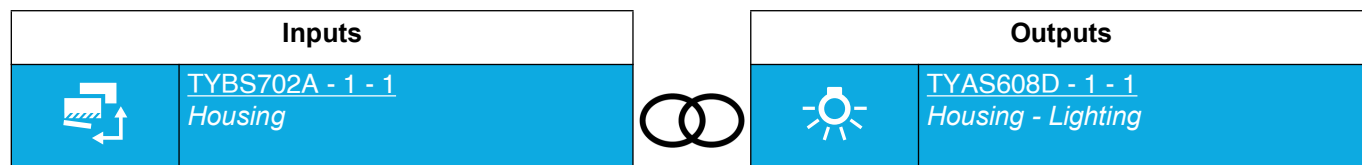
Closing the input contact activates scene 1.
Closing the input contact activates scene 2.

Note: At the time the connection is made, the scene number must be defined for the closing and opening input contact.

*Note: By default, the input operates like an NO contact (Normally open). If the parameter **Inverted** is validated, the input operates like an NC contact (Normally closed).*

Below is the list of outputs where the scene is possible.

|			
	Lighting		Dimming
	Shutter/blind		CMV

The scene is also possible on the input.

	Increase/decrease dimming (Only with TX511 and TXC511)		Setpoints heating

3.3 Configuring links for LED output status indications

(TYBS794A only)

The LED outputs (status indication) are used to control the switching on of conventional indicator LEDs.
This function makes it possible to choose the circuit shown for each LED output:
- The circuit controlled by the corresponding input,
- Any other installation circuit.

The functions bellow enable links between the LED inputs and outputs as well as links with the usual outputs.
- **ON**: Lights up the output LED indicating the switching on of the lighting circuit.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYBS794A - 1 - 1 *Housing - Lighting*

Closing input contact: The output LED lights up indicating the switching on of the lighting circuit.
Opening input contact: No action.

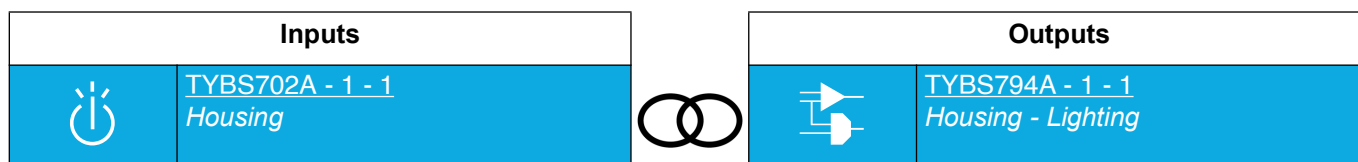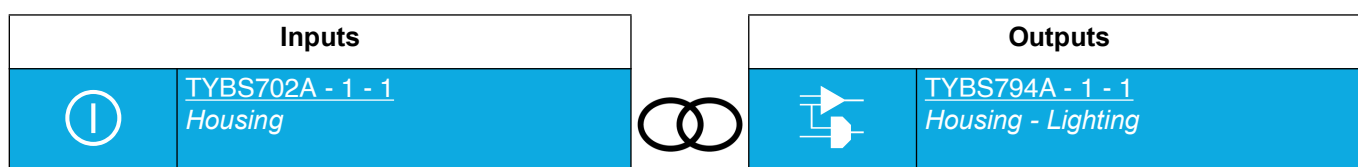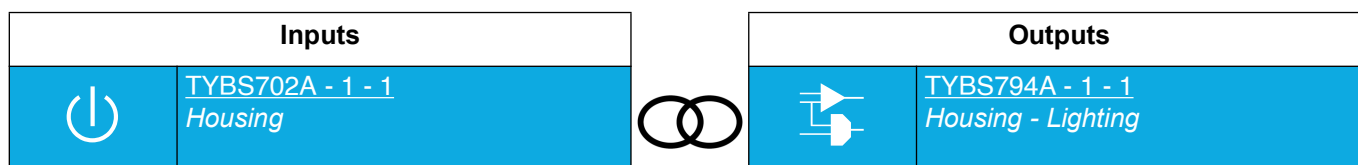- **OFF**: Lights up the output LED indicating the switching off of the lighting circuit.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYBS794A - 1 - 1 *Housing - Lighting*

Closing input contact: The output LED turns off indicating the switching off of the lighting circuit.
Opening input contact: No action.

- **ON/OFF**: Used to turn on or off the output LED according to the status of the lighting circuit.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYBS794A - 1 - 1 *Housing - Lighting*

Closing input contact: The output LED lights up indicating the switching on of the lighting circuit.
Opening input contact: The output LED turns off indicating the switching off of the lighting circuit.

- **Toggle switch**: Used to inverse the status of the output LED according to the status of the lighting circuit.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYBS794A - 1 - 1 *Housing - Lighting*
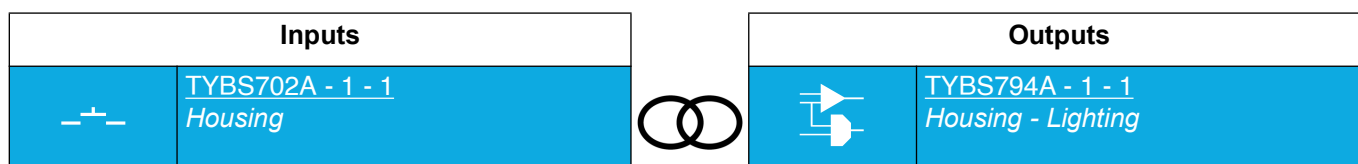
Closing input contact: toggles between turning the output LED and the lighting circuit on and off. Successive closures inverse the status of the output LED and lighting circuit each time.

The functions below can also be used for output LEDs:

	General ON	Switches on a lighting circuit assembly.
	General OFF	Switches off a lighting circuit assembly.
	General ON/OFF	Switches a lighting circuit assembly on or off (switch).

Note: The variation functions can also be linked with output LEDs. In this case, only the ON/OFF function is used.

	Increase dimming/ON
	Decrease dimming/OFF
	Increase/decrease dimming

- **Up/down**: Used to display the status of the last movement of the shutter.

Inputs		Outputs	
	TYBS702A - 1 - 1 *Housing*		TYBS794A - 1 - 1 *Housing - Lighting*

Closing input contact: The output LED lights up indicating the raising of the shutter.
Opening input contact: The output LED turns off indicating the lowering of the shutter.

The functions below can also be used for output LEDs:

Shutter/blind			
	Blinds up		Switch up
	Blinds down		Down switch
	Toggle switch up/down		General up
	Down/up		General down
			General up/down

Note: When the raising or lowering of the shutter is stopped by a stop command for example, the output LED remains unchanged.

- **Heating/cooling off**: Used to display the status of the protection mode for heating and cooling according to the mode used.

Inputs			Outputs	
❄️ stop	TYBS702A - 1 - 1 *Housing*	⚭	▷	TYBS794A - 1 - 1 *Housing - Lighting*
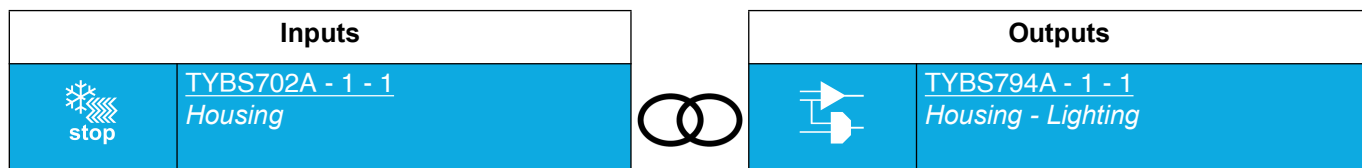
Closing input contact: The output LED lights up indicating the protection mode whether in heating or cooling mode.
Opening input contact: The output LED turns off indicating the return to the normally active mode.

4. Appendix

4.1 Technical data

- TYBS702A-TYBS704A

Ambient temperature	-5 ... +45 °C
Storage/transport temperature	-25 ... +75 °C
Degree of protection	IP20
Protection class	III
Number of channels	
- TYBS702A	2
- TYBS704A	4
Output voltage TYBS702A, TYBS704A	DC 3,3 V SELV
Output current per channel TYBS702A, TYBS704A	max. 3,3 mA
LED current (red LED with 1.7 V current voltage) TYBS702A, TYBS704A	1,6 mA per output
Connection of channels	
- TYBS702A	3-core wiring harness
- TYBS704A	5-core wiring harness
Length, wiring harness TYBS702A, TYBS704A	25 cm, can be extended to max. 10 m
Recommended cable	J-Y(St)Y
Dimensions (LxWxH) TYBS702A, TYBS704A	43,0 x 28,5 x 15,4 mm
KNX medium	TP256
Commissioning mode	S mode
Rated voltage KNX	DC 21 ... 32 V SELV
Connection mode KNX	Device connection
Current consumption, KNX	
- TYBS702A	4 ... 7 mA
- TYBS704A	4 ... 9 mA

- TYBS794A

Ambient temperature	-5 ... +45 °C
Storage/transport temperature	-25 ... +75 °C
Degree of protection	IP20
Protection class	III
Number of channels	8
Output voltage	DC 5 V SELV
Output current per channel	max. 3,2 mA
LED current (red LED with 1.7 V current voltage)	2,2 mA per output
Connection of channels	2x 5-core wiring
Length, wiring harness	25 cm, can be extended to max. 30 m
Recommended cable	J-Y(St) Y
Dimensions (L × W × H)	43,5 x 35,5 x 15,4 mm
KNX medium	TP256
Commissioning mode	S mode
Rated voltage KNX	DC 21 ... 32 V SELV
Connection mode KNX	Device connection terminal
Current consumption, KNX	5 ... 18 mA

4.2 Characteristics

Device	TYBS702A	TYBS704A	TYBS794A
Max. number of group addresses	254	254	254
Max. number of allocations	255	255	255

:hager