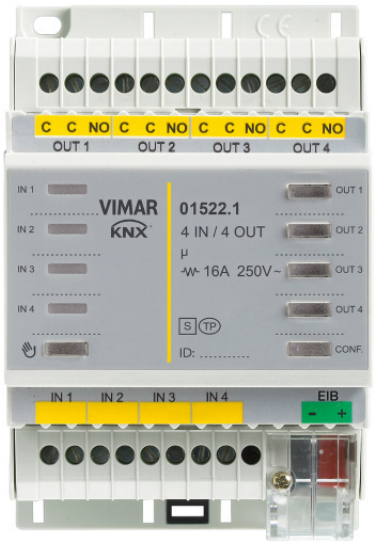
VIMAR

Installer manual



01522.1

4 input/output device, 4 relay outputs NO 16 A 250 V~.

BUILDING AUTOMATION

WELL-CONTACT PLUS

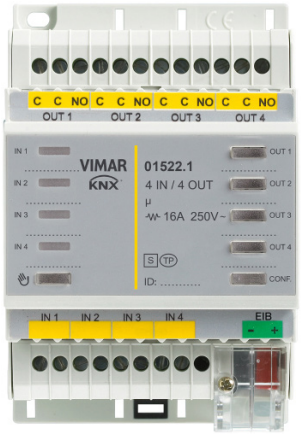
Contents

For details of the Well-contact Plus system, consult the installer manual, which can be downloaded from the Download section ➡ Software ➡ Well-contact Plus on the website www.vimar.com.

4 input/4 output device

General characteristics and functions

Device with 4 inputs/outputs, 4 NO relay outputs 16 A 250 V~, programmable with control function for lights, roller shutters with slat orientation, push buttons for local control, 4 programmable digital inputs for potential-free contacts, KNX standard, installation on DIN rails (60715 TH35), occupies 4 modules size 17.5 mm.



01522.1

General characteristics

The device is designed to manage 4 inputs and 4 generic outputs for typical applications in the service industry (access to offices, hospital or hotel rooms, swimming pools, saunas, sports facilities, restricted access areas, etc.). The device has 4 ON/OFF inputs and 4 relay outputs 16 A 250 V~.
It is also designed to work as a virtual pocket function for the presence control in the room.
Outputs 1-2 and 3-4 can be used to control roller shutters or Venetian blinds.

Functions

The functions available are the same for all channels.

For "Single outputs", the following functions are available for the outputs:

- Disabled
  channel without function;
- Switching module
  the output is switched according to the other parameters;
- Stair light
  depending on the other parameters, the output is switched for a period of time (one-position stable relay).

Two outputs can be grouped together (OUT1/OUT2 and OUT3/OUT4 to obtain the following functions:

- Roller shutter
- Venetian blinds

Fr the inputs:

- Disabled
  channel without function;
- **Grouped channels:** control or roller shutter function (IN 1/2 and IN 3/4 are connected to two separate control devices - e.g. 20062);
- **Single channels:** switching module, counter, scenario, short/long switching module, sequences function. Dimmer control with 1 button, roller shutter with 1 button.

Manual operation

Press the ✋ push button to enter manual mode to check the output connections. Press push buttons OUT1, OUT2, OUT3, OUT4 to control the related outputs. During manual operation, outputs OUT1/OUT2 and OUT3/OUT4 are interlocked to prevent damaging any motors connected, and messages received from the bus are not managed.

Behaviour after powering on/off the Bus

Bus off: depending on the parameter settings.
Bus on: depending on the parameter settings.

Behaviour after reset

As for Bus power-on.

General characteristics and functions

The KNX Secure protocol

The device is used to activate the “KNX SECURE” data encryption protocol, entering the QR code or the digits in ETS and also creating a password associated to the project.

Note: If the QR code printed on the label is too small, take a photo of it with a smartphone and enlarge it.

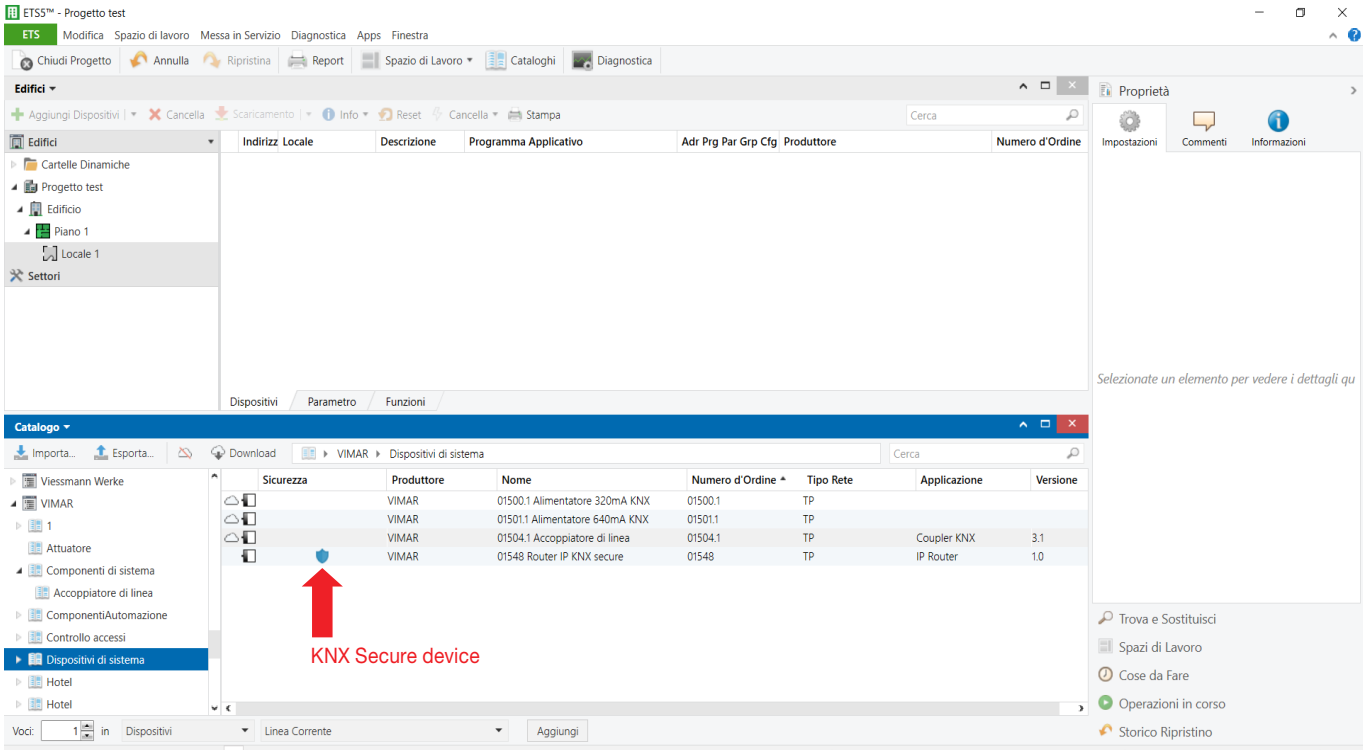
The password is mandatory in the following cases:

- when enabling the Secure part of the devices in the project
- when entering the certificate of a Secure device in the project

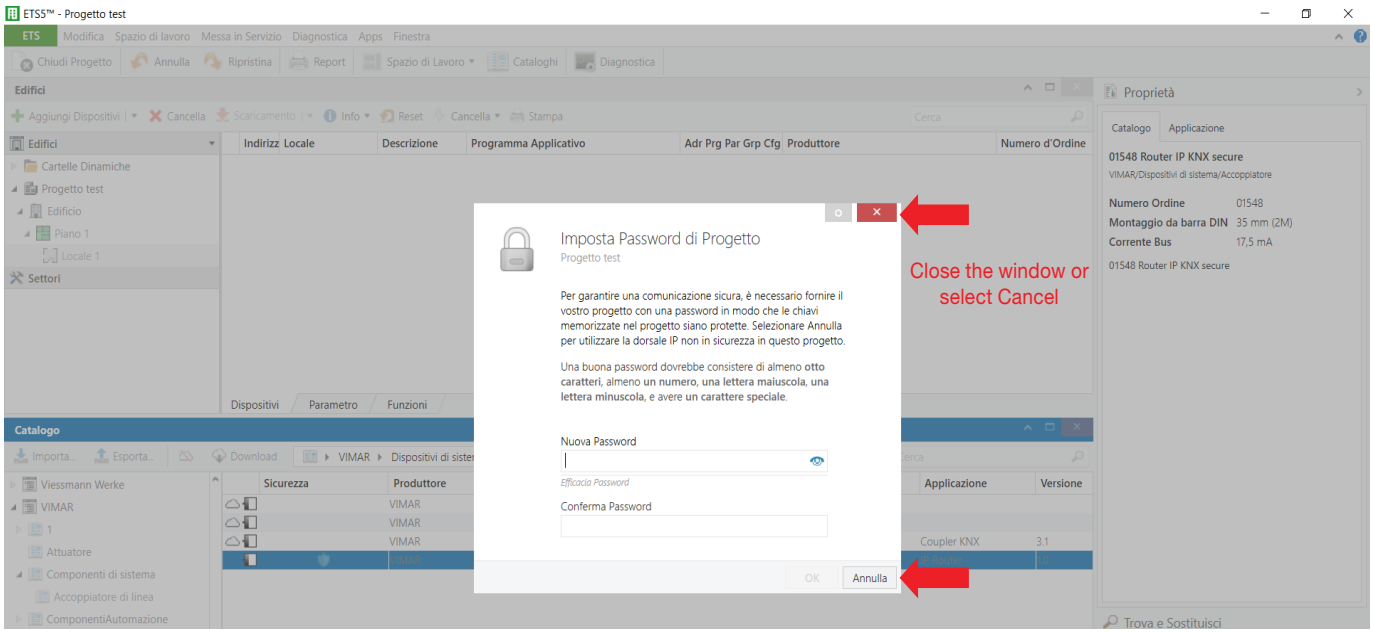
If the Secure part of a device is disabled, it acts exactly like a device that does not support this protocol.

If you do not wish to enable the Secure part, when importing the device into the project close the Secure request window as described in the following procedure.

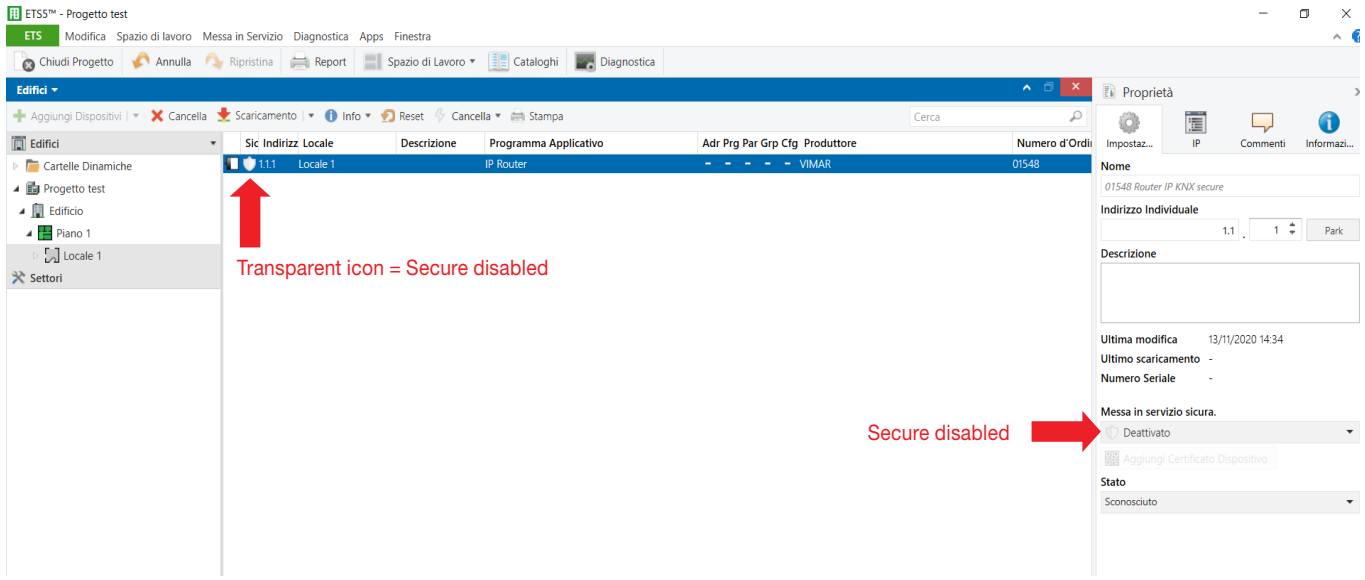
1. Add the Secure device to the ETS project.



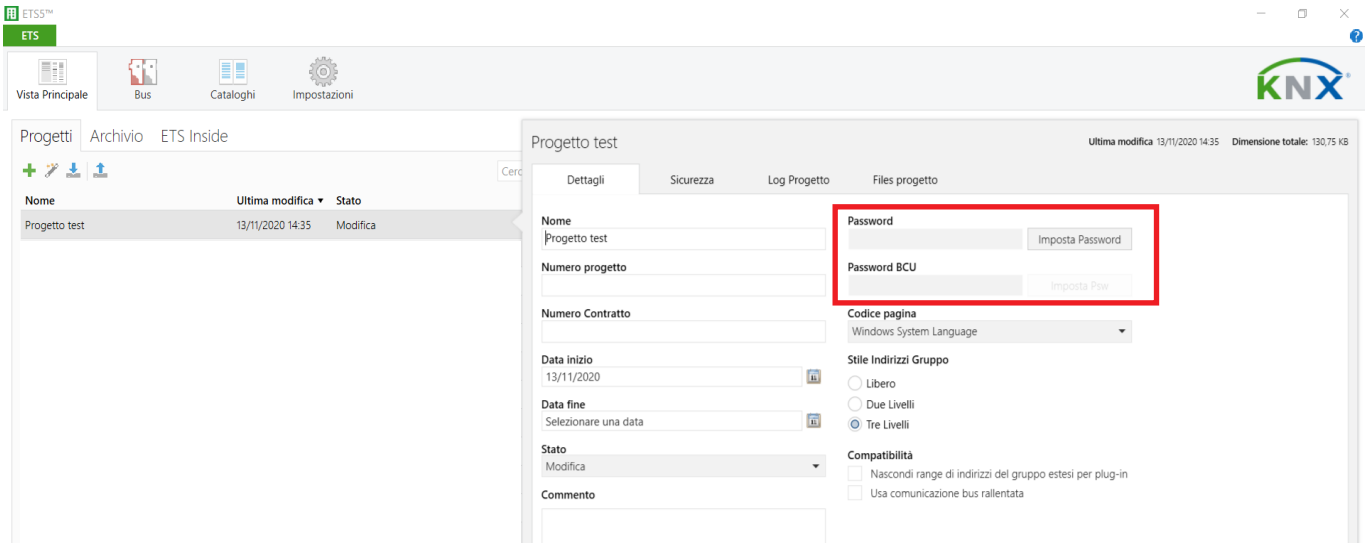
2. Ignore the set password request.



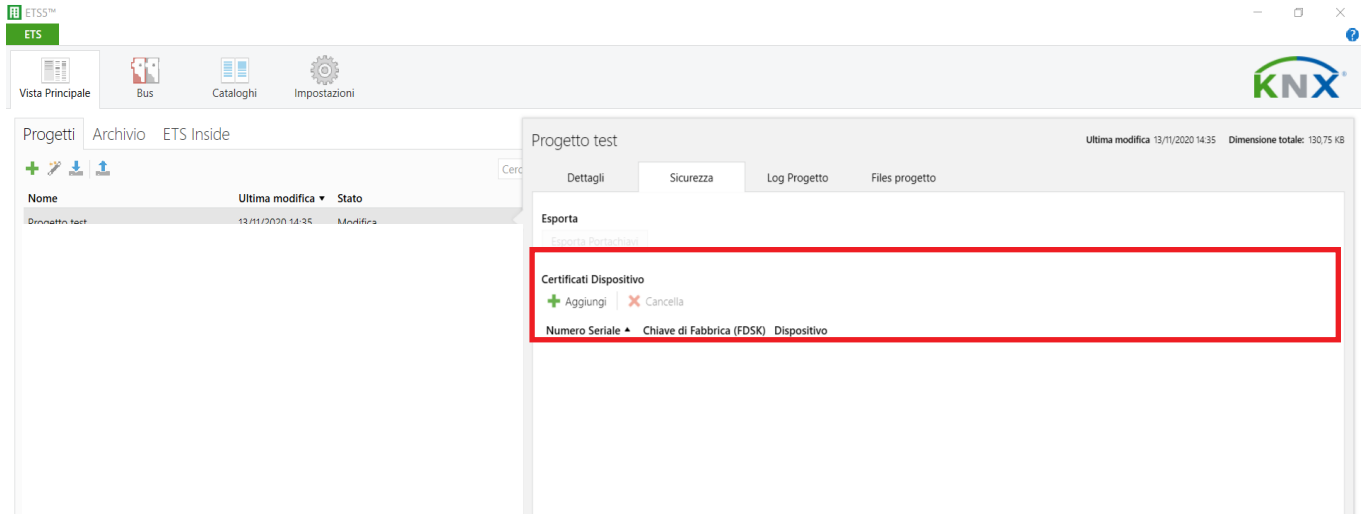
3. The device is displayed with the Secure part disabled.



4. No password is associated to the project.



5. No certificate is associated to the project.



Communication objects and ETS parameters

List of existing communication objects

The following objects are available for each channel, depending on the function and settings; they are identical for every channel or for pairs of channels used for roller shutters. If a channel is not on there are no communication objects.

Output communication objects

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type
1	Out 1	Switch on/off			1 bit	C	-	W	-	U	switch
4	Out 1	Block			1 bit	C	-	W	-	U	enable
5	Out 1	Scene			1 byte	C	-	W	-	U	scene control
6	Out 1	Status			1 bit	C	R	-	T	-	switch
7	Out 1	Logic 1			1 bit	C	-	W	-	U	boolean
8	Out 1	Logic 2			1 bit	C	-	W	-	U	boolean
9	Out 1	Logic 3			1 bit	C	-	W	-	U	boolean
10	Out 1	Logic 4			1 bit	C	-	W	-	U	boolean
15	Out 2	Stair case			1 bit	C	-	W	-	U	start/stop
17	Out 2	Block			1 bit	C	-	W	-	U	enable
19	Out 2	Status			1 bit	C	R	-	T	-	switch
111	Central function	Switch on/off			1 bit	C	-	W	-	U	switch

Example: *Output 1* - Switching module with block on, scenario on and logic with 4 objects, *Output 2* - Stair light with block on

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type
1	Out 1/2	Shutter up/down			1 bit	C	-	W	-	U	up/down
2	Out 1/2	Blinds up/down /stop			1 bit	C	-	W	-	U	up/down
4	Out 1/2	Scene			1 byte	C	-	W	-	U	scene control
5	Out 1/2	Act. direction			1 bit	C	R	-	T	-	up/down
6	Out 1/2	Position (Absolute)			1 byte	C	-	W	-	-	percentage (0..100%)
7	Out 1/2	abs. Position of blinds			1 byte	C	-	W	-	-	percentage (0..100%)
8	Out 1/2	Position (Actual)			1 byte	C	R	-	T	-	percentage (0..100%)
9	Out 1/2	Actual Position of slats			1 byte	C	R	-	T	-	percentage (0..100%)
10	Out 1/2	Act. position valid			1 bit	C	R	-	T	-	boolean
11	Out 1/2	Drive to reference			1 bit	C	-	W	-	U	up/down
12	Out 1/2	Drive to limit			1 bit	C	-	W	-	U	up/down
13	Out 1/2	State upper Position			1 bit	C	R	-	T	-	boolean
14	Out 1/2	State lower Position			1 bit	C	R	-	T	-	boolean
16	Out 1/2	Block manual mode			1 bit	C	-	W	-	U	enable
17	Out 1/2	Move			1 bit	C	R	-	T	-	boolean
89	Out 1/2	Alert (Wind)			1 bit	C	-	W	-	U	alarm
90	Out 1/2	Alert (Rain)			1 bit	C	-	W	-	U	alarm
91	Out 1/2	Alert (Frost)			1 bit	C	-	W	-	U	alarm
92	Out 1/2	Block			1 bit	C	-	W	-	U	enable

Example: *Out 1/2* - Venetian blinds with possibility to control the position from the bus and with warnings active

Communication objects and ETS parameters

Input communication objects

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type
53	In 1	Switch			1 bit	C	R	-	T	-	switch
56	In 1	Status			1 bit	C	-	W	-	U	switch
61	In 1	Blocking object			1 bit	C	-	W	-	U	boolean
62	In 2	Send Value - rising			1 bit	C	R	-	T	-	switch
63	In 2	Send Value - falling			1 bit	C	R	-	T	-	switch
70	In 2	Blocking object			1 bit	C	-	W	-	U	boolean
71	In 3	Short press function			1 byte	C	R	-	T	-	counter pulses (0..255)
72	In 3	Long press function			1 byte	C	R	-	T	-	counter pulses (0..255)
80	In 4	Short press function			1 byte	C	R	-	T	-	counter pulses (0..255)
81	In 4	Long press function			1 byte	C	R	-	T	-	counter pulses (0..255)

Example: *Input 1* - Switching module with one object, *Input 2* - Switching module with several objects on the edge, *Input 3* - Switching module with several objects/ short-long press/ call up and store scenario, *Input 4* - Switching module with more than one object sending value on short press and long press

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type
53	In 1	Sequence short - Value			1 byte	C	R	-	T	-	counter pulses (0..255)
54	In 1	Sequence long - Value			1 byte	C	R	-	T	-	counter pulses (0..255)
62	In 2	Dimming on/off			1 bit	C	R	-	T	-	switch
63	In 2	Dimming			4 bit	C	R	-	T	-	dimming control
65	In 2	Status			1 bit	C	-	W	-	U	switch
71	In 3	Shutter			1 bit	C	R	-	T	-	up/down
72	In 3	Shutter Stop			1 bit	C	R	-	T	-	trigger
80	In 4	Counter reset			1 bit	C	-	W	-	U	trigger
81	In 4	Counter Threshold			1 bit	C	R	-	T	-	boolean
83	In 4	Counter			1 byte	C	R	-	T	-	counter pulses (0..255)

Example: *Input 1* - Switching module with more than one object/sequence, *Input 2* - Dimmer switching module with one button, Input *3* - Roller shutter switching module with single button, *Input 4* - Counter

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type
53	In 1/2	Dimming on/off			1 bit	C	R	-	T	-	switch
54	In 1/2	Dimming			4 bit	C	R	-	T	-	dimming control
71	In 3/4	Sunprotection up/down			1 bit	C	R	-	T	-	up/down
72	In 3/4	Blinds on/off/stop			1 bit	C	R	-	T	-	open/close

Example: *Input 1/2* - Grouped inputs with Dimmer control function, *Input 3/4* -Grouped inputs with Roller shutter control function

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type
105	Virtual holder	First movement detector			1 bit	C	-	W	-	U	switch
106	Virtual holder	Second movement detector			1 bit	C	-	W	-	U	switch
107	Virtual holder	Activity reporting			1 bit	C	-	W	-	U	switch
108	Virtual holder	Door input			1 bit	C	-	W	-	U	switch
109	Virtual holder	Waiting time			2 bytes	C	-	W	-	U	time (s)
110	Virtual holder	Room presence			1 bit	C	R	-	T	-	switch

Example: Virtual pocket enabled with 2 motion sensors and activity signal.

Communication objects and ETS parameters

Communication objects per channel

Number	Name in ETS	Function in ETS	Description	Length	Flag 1				
					C	R	W	T	U
OUTPUTS			**With outputs OUT1, OUT2, OUT3 and OUT4 configured as single outputs**						
1	Out 1	On/ off	(If the output is enabled as "Switching module") to switch the output On/ Off	1 bit	X		X		X
2	Out 1	Stair light	(If the output is enabled as "Stair Light") to switch the output on, with timed switch-off.	1 bit	X		X		X
3	Out 1	Force	(If the output “Block” parameter is on, with “Force” function) to force the output On/Off from the Bus	2 bit	X		X		
4	Out 1	Block	((If the output “Block” parameter is on, with "Block" function) to block the output control from the Bus	1 bit	X		X		X
5	Out 1	Scenario	(If the output "Scenario" parameter is on), to activate and, if required, store (if the parameter is active) a scenario associated to the output	1 byte	X		X		X
6	Out 1	State	(If the output is enabled as "Switching module") to know the output state	1 bit	X	X		X	
7... 13	Out 1	Logic 1... 7	(If the logic function for the output is on) A number of objects from 1 to 7 can be selected for OR, AND, XOR logics with the "On/off" object to determine the output state.	1 bit	X		X		X
14... 26	Out 2 (see similar objects for Out 1)		As per Out 1						
27... 39	Out 3 (see similar objects for Out 1)		As per Out 1						
40... 52	Out 4 (see similar objects for Out1)		As per Out 1						
OUTPUTS			**With outputs OUT1/2 and OUT3/4 configured as roller shutter or Venetian blinds**						
1	Out 1/2	Roller shutter Up/Down	(If the output is enabled as "Roller shutter" or "Venetian blinds") To move the Venetian blinds/roller shutter.	1 bit	X		X		X
2	Out 1/2	Slats up/down/stop	(If the output is enabled as "Venetian blinds") To rotate/stop the slats.	1 bit	X		X		X
3	Out 1/2	Stop	(If the output is on as "Roller shutter") To stop the roller shutter.	1 bit	X		X		X
4	Out 1/2	Scenario	(If the output is on as “Venetian blinds” or “Roller shutter” and "Scenario" is on) To call up the scenarios from the Bus.	1 byte	X		X		X
5	Out 1/2	Actual direction	(If the output is on as “Venetian blinds” or “Roller shutter” and "select objects for absolute position” is on) Object signalling the roller shutter direction of movement. Reading the state, the object responds with the last movement made or the current one if the roller shutter is moving (1 = up, 0 = down).	1 bit	X	X		X	
6	Out 1/2	Position (Absolute)	(If the output is on as “Venetian blinds” or “Roller shutter” and "select objects for absolute position” is on) To set the roller shutter position from a supervisor (0% = all up, 100% = all down.	1 byte	X		X		
7	Out 1/2	Absolute slat position	(If the output is on as “Venetian blinds” and "select objects for absolute position” is on) To set the slat position from a supervisor (0% = open, 100% = closed).	1 byte	X		X		
8	Out 1/2	Position (Actual)	(If the output is on as “Venetian blinds” or “Roller shutter” and "select objects for absolute position” is on) To know the actual position of the roller shutter (0% = all up, 100% = all down.	1 byte	X	X		X	
9	Out 1/2	Current slat position	(If the output is on as “Venetian blinds” and "select objects for absolute position” is on). To know the actual slat position.	1 byte	X	X		X	
10	Out 1/2	Valid actual position	(If the output is on as “Venetian blinds” or “Roller shutter” and "select objects for absolute position” is on) To know the actual roller shutter position.	1 bit	X	X		X	
11	Out 1/2	Door to reference	(If the output is on as “Venetian blinds” or “Roller shutter” and "select objects for absolute position” is on) Object used to move the roller shutter Up/Down: sends a bit= 1 to the Bus to raise or a bit=0 to lower (the device will ignore all other commands sent to the Bus until the output switches off within the set time)	1 bit	X		X		X
12	Out 1/2	Door at limit	(If the output is enabled as "Venetian blinds" or "Roller shutter" and the "Driving Area - Limitation” is on) Object used to move the roller shutter Up/Down: receives a bit =1 from the Bus to raise or a bit = 0 to lower.	1 bit	X		X		X

Continued

C = Communication, **R** = Read, **W** = Write, **T** = Transmission, **U** = Enable update

Communication objects and ETS parameters

Continued

Number	Name in ETS	Function in ETS	Description	Length	Flag 1				
					C	R	W	T	U
13	Out 1/2	Upper state - Position	(If the output is on as “Venetian blinds” or “Roller shutter” and "select objects for absolute position” is on) The device sends a bit to 1 when the upper limit stop is reached.	1 bit	X	X		X	
14	Out 1/2	Lower state - Position	(If the output is on as “Venetian blinds” or “Roller shutter” and "select objects for absolute position” is on) The device sends a bit to 1 when the lower limit stop is reached.	1 bit	X	X		X	
15	Out 1/2	Automatic lock	(If the output is enabled as "Venetian blinds" or "Roller shutter" and "Automatic roller shutter operation” is on) To enable/disable the automatic operation (rain, wind, etc.).	1 bit	X		X		X
16	Out 1/2	Lock mode manual	(If the output is enabled as "Venetian blinds" or "Roller shutter") To enable/disable the manual operation (controlled from a button via Bus).	1 bit	X		X		X
17	Out 1/2	Move	(If the output is on as “Venetian blinds” or “Roller shutter” and "select objects for absolute position" is on) Object that sends a bit = 1 when the movement starts, or a bit = 0 when the movement ends. It is also possible to read the current state.	1 bit	X	X		X	
89	Out 1/2	Warning (Wind)	(If the output is enabled as "Venetian blinds" or "Roller shutter" and the "Warning Function" is on with "Warning Wind") to move the roller shutter/Venetian blinds to the position for this type of warning set in the specific parameters.	1 bit	X		X		X
90	Out 1/2	Warning (Rain)	(If the output is enabled as "Venetian blinds" or "Roller shutter" and the "Warning Function" is on with "Warning Rain") to move the roller shutter/Venetian blinds to the position for this type of warning set in the specific parameters.	1 bit	X		X		X
91	Out 1/2	Warning (Frost)	(If the output is enabled as "Venetian blinds" or "Roller shutter" and the "Warning Function" is on with "Warning Frost") to move the roller shutter/Venetian blinds to the position for this type of warning set in the specific parameters.	1 bit	X		X		X
92	Out 1/2	Block	(If the output is enabled as "Venetian blinds" or "Roller shutter" and the "Warning Function" is on with "Block") to block the roller shutter at the limit stop with a bit to "1" (upper or lower, according to the parameters).	1 bit	X		X		X
97	Automatic A	Automatic operation 1 - Position	(If the "Automatic operation" parameter of "Block-A” is on) To automatically control this roller shutter output object which can recall specific positions similar to scenarios.	1 bit	X		X		
98	Automatic A	Automatic operation 2 - Position	(If the "Automatic operation" parameter of "Block-A” is on) To automatically control this roller shutter output object which can recall specific positions similar to scenarios.	1 bit	X		X		
99	Automatic A	Automatic operation 3 - Position	(If the "Automatic operation" parameter of "Block-A” is on) To automatically control this roller shutter output object which can recall specific positions similar to scenarios.	1 bit	X		X		
100	Automatic A	Automatic operation 4 - Position	(If the "Automatic operation" parameter of "Block-A” is on) To automatically control this roller shutter output object which can recall specific positions similar to scenarios.	1 bit	X		X		
101	Automatic B	Automatic operation 1 - Position	(If the "Automatic operation" parameter of "Block-B” is on) To automatically control this roller shutter output object which can recall specific positions similar to scenarios.	1 bit	X		X		
102	Automatic B	Automatic operation 2 - Position	(If the "Automatic operation" parameter of "Block-B” is on) To automatically control this roller shutter output object which can recall specific positions similar to scenarios.	1 bit	X		X		
103	Automatic B	Automatic operation 3 - Position	(If the "Automatic operation" parameter of "Block-B” is on) To automatically control this roller shutter output object which can recall specific positions similar to scenarios.	1 bit	X		X		
104	Automatic B	Automatic operation 4 - Position	(If the "Automatic operation" parameter of "Block-B” is on) To automatically control this roller shutter output object which can recall specific positions similar to scenarios.	1 bit	X		X		
INPUTS		**In IN 1/2 and IN 3/4 mode, single channels**							
53	In 1	Switching module	(If the Input is on with "Switching to an object” function), to manage On/Off sending to input contact edges. If the sub-function "Toggle on rising/falling edge" is on, to manage the On/Off sequence on closing or opening the input contact, this State object must also be associated to the same group.	1 bit	X	X		X	
53	In 1	Send value - up	(If the Input is on with "Switching module with several objects” function with sub-function “on the edge"), to send an On or Off value, selected in the configuration, to the rising edge.	1 bit	X	X		X	
53	In 1	Function short press	(If the Input is on with "Switching module with several objects” function with sub-function "On/Off", "On", "Off"), to send an On, Off, Toggle On/Off value for short press.	1 bit	X	X		X	

Continued

C = Communication, **R** = Read, **W** = Write, **T** = Transmission, **U** = Enable update

Communication objects and ETS parameters

Continued

Number	Name in ETS	Function in ETS	Description	Length	Flag 1				
					C	R	W	T	U
53	In 1	Function short press	(If the Input is on with "Switching module with several objects" function with sub-function "Scenario" or "Store scenario"), to call up or store a scenario with short press.	1 byte	X		X		X
53	In 1	Function short press	(If the Input is on with "Switching module with several objects" function with sub-function "Forced On", "Forced Off", "Disable forcing", toggle "Forced On/Disable" or toggle "Forced Off/Disable"), to enable or disable forcing with short press.	2 bit	X	X		X	
53	In 1	Function short press	(If the Input is on with "Switching module with several objects" function with sub-function "Value"), to send a 1 byte or 2 byte value selected in the short press configuration.	1 byte 2 byte	X	X		X	
53	In 1	Short sequence - Value 1	(If the Input is on with "Switching module with several objects" function with sub-function "Sequence"), to send a 1 bit or 1 byte value selected in the configuration as the first value for the short press.	1 bit 2 byte	X	X		X	
53	In 1	On/Off control	(If the Input is on with "Single button control") it is possible to control a dimmer in On/Off/Adjustment with a single contact (e.g. N.O. button) connected to the device Input, and with a *short press* will switch the object On/Off	1 bit	X	X		X	
53	In 1	Roller shutter	(If the Input with "Roller shutter single button control" function is on) it is possible to control the moving roller shutter using a single contact (e.g. N.O. button) connected to the device Input, with a *long press*	1 bit	X	X		X	
53	In 1	Reset counter	(If the Input is on with "Counter" function) to reset the counter.	1 bit	X		X		X
54	In 1	Function long press	(If the Input is on with "Switching module with several objects" function with sub-function "Value"), to send a 1 byte or 2 byte value selected in the long press configuration.	1 byte 2 byte	X		X		X
54	In 1	Function long press	(If the Input is on with "Switching module with several objects" function with sub-function "Scenario" or "Store scenario"), to call up or store a scenario with long press.	1 byte	X		X		X
54	In 1	Function long press	(If the Input is on with "Switching module with several objects" function with sub-function "Forced On", "Forced Off", "Disable forcing", toggle "Forced On/Disable" or toggle "Forced Off/Disable"), to enable or disable forcing with long press.	2 bit	X		X		X
54	In 1	Function long press	(If the Input is on with "Switching module with several objects" function with sub-function "Value"), to send a 1 byte or 2 byte value selected in the long press configuration.	1 byte 2 byte	X		X		X
54	In 1	Short sequence - Value 2	(If the Input is on with "Switching module with several objects" function with sub-function "Sequence"), to send a 1 bit or 1 byte value selected in the configuration as the second value for the short press.	1 bit 1 byte	X		X		X
54	In 1	Counter threshold	(If the Input is on with "Counter" function and the "Threshold on" parameter is on) to sent a "1" bit to the Bus if the pulse counter has reached the limit threshold (limit set in the device parameters)	1 bit	X	X		X	X
54	In 1	Dimmer Control	(If the Input is on with "Single button control") it is possible to control a dimmer in On/Off/Adjustment with a single contact (e.g. N.O. button) connected to the device Input, a long press on the button will cyclically control the positive-negative until the 4 bit object is released	4 bit	X	X		X	
54	In 1	Stop roller shutters	(If the Input with "Roller shutter single button control" function is on) it is possible to stop the moving roller shutter using a single contact (e.g. N.O. button) connected to the device Input, with a *short press.*	1 bit	X	X		X	
55	In 1	Short sequence - Value 3	(If the Input is on with "Switching module with several objects" function with sub-function "Sequence"), to send a 1 bit or 1 byte value selected in the configuration as the third value for the short press.	1 bit 1 byte	X	X		X	
56	In 1	Short sequence - Value 4	(If the Input is on with "Switching module with several objects" function with sub-function "Sequence"), to send a 1 bit or 1 byte value selected in the configuration as the fourth value for the short press.	1 bit 1 byte	X	X		X	
57	In 1	Long sequence - Value 1	(If the Input is on with "Switching module with several objects" function and sub-function "Sequence"), to send a 1 bit or 1 byte value selected in the configuration as the first value for a long press.	1 bit 1 byte	X		X		X
58	In 1	Long sequence - Value 2	(If the Input is on with "Switching module with several objects" function with sub-function "Sequence"), to send a 1 bit or 1 byte value selected in the configuration as the second value for the long press.	1 bit 1 byte	X		X		X
59	In 1	Long sequence - Value 3	(If the Input is on with "Switching module with several objects" function with sub-function "Sequence"), to send a 1 bit or 1 byte value selected in the configuration as the third value for the long press.	1 bit 1 byte	X		X		X
60	In 1	Long sequence - Value 4	(If the Input is on with "Switching module with several objects" function and sub-function "Sequence"), to send a 1 bit or 1 byte value selected in the configuration as the fourth value for a long press.	1 bit 1 byte	X		X		X

Continued

C = Communication, **R** = Read, **W** = Write, **T** = Transmission, **U** = Enable update

Communication objects and ETS parameters

Continued

Number	Name in ETS	Function in ETS	Description	Length	Flag 1				
					C	R	W	T	U
56	In 1	State	(If the Input is on with "Switching module with several objects" function with sub-function "Toggle on rising/falling edge"), to know the input state: this object must be associated to the same group as the input set as Toggle to obtain the Toggle On/Off sequence	1 bit	X		X	X	X
56	In 1	Counter	(If the Input is on with "Counter" function with 8 bit type) to enable the pulse counter function on the input	1 byte	X	X		X	
56	In 1	Counter	(If the Input is on with "Counter" function with 16 bit type) to enable the pulse counter function on the input	2 byte	X	X		X	
56	In 1	Counter	(If the Input is on with "Counter" function with 32 bit type) to enable the pulse counter function on the Input	4 byte	X	X		X	
56	In 1	State	(If the Input is on with "Single button control") it is possible to know the On/Off state of a dimmer controlled by a button connected to this Input	1 bit	X		X	X	X
56	In 1	Toggle state short press	(If the Input is on with "Switching module with several objects" function with sub-function "On/Off"), to know the input state: this input must be associated to the control to obtain the Toggle On/Off function for short press.	1 bit	X		X		X
57	In 1	Toggle state long press	(If the Input is on with "Switching module with several objects" function with sub-function "On/Off"), to know the input state: this input must be associated to the control to obtain the Toggle On/Off function for long press.	1 bit	X		X		X
61	In 1	Object block	(With any function/sub-function, if the "Block" parameter is on) - to block the input operation via a 1 bit sent to the Input group	1 bit	X		X		X
62… 70	In 2 (see similar objects for In 1)		as per IN 1						
71… 79	In 3 (see similar objects for In 1)		as per IN 1						
80… 88	In 4 (see similar objects for In 1)		as per IN 1						
INPUTS			**In IN 1/2 and IN 3/4 mode, grouped channels**						
53	In 1/2	On/Off control	(If the Input is on with "Dimmer control" function) it is possible to control a dimmer in On/Off via a double contact (e.g. 2 N.O. buttons) where the two buttons are connected to inputs 1 and 2 on the device, and with a *short closing* of IN 1 will switch On and with the *short closing* of IN 2 will switch Off	1 bit	X	X		X	
53	In 1/2	Roller shutter	(If the Input is on with "Sun protection" function) to stop a roller shutter via a double contact (e.g. 2 N.O. buttons) where the two buttons are connected to inputs 1 and 2 of the device, and to stop any of the two inputs can be enabled	1 bit	X	X		X	
54	In 1/2	Dimmer control	(If the Input is on with "Dimmer control" function) it is possible to control a dimmer via a double contact (e.g. 2 N.O. buttons) where the two buttons are connected to Inputs 1 and 2 of the device, and with a *long closing* of IN 1 or IN 2 will increase/decrease according to the set parameters	4 bit	X	X		X	
54	In 1/2	Slats/stop control	(if the Input is on with "sun protection" function) it is possible to control a roller shutter moving up/down via a double contact (e.g. 2 N.O. buttons) connected to Inputs 1/2 of the device	1 bit	X	X		X	
61	In 1/2	Object block	(With any function/sub-function, if the "Block" parameter is on) - to block the input operation via a "1" bit sent to the Input group	1 bit	X		X		X
71… 79	In 3/4 (see similar objects for In 1/2)		As per IN 1 and 2						
VIRTUAL POCKET									
105	Virtual pocket	First motion sensor	(If the "Virtual pocket" function is on) To receive an indication from a motion sensor.	1 bit	X		X		X
106	Virtual pocket	Second motion sensor	(If the "Virtual pocket" function is on and the "Second motion sensor" is enabled) To receive an indication from a second motion sensor.	1 bit	X		X		X
107	Virtual pocket	Activity signalling	(If the "Virtual pocket" function is on and "Activity signalling" is enabled) To receive an indication from a second motion sensor.	1 bit	X		X		X

Continued

C = Communication, **R** = Read, **W** = Write, **T** = Transmission, **U** = Enable update

Communication objects and ETS parameters

Continued

Number	Name in ETS	Function in ETS	Description	Length	Flag 1				
					C	R	W	T	U
108	Virtual pocket	Door input	(If the “Virtual pocket” function is on) To receive an indication on the door opening and closing.	1 bit	X		X		X
109	Virtual pocket	Wait time	(If the "Virtual pocket” function is on) To receive a value via bus for the Wait time.	1 byte	X		X		X
110	Virtual pocket	Presence in room	(If the "Virtual pocket” function is on) To transit a bit=1 to signal that the room is occupied and a bit=0 to signal that the room is free.	1 bit	X	X		X	

C = Communication, **R** = Read, **W** = Write, **T** = Transmission, **U** = Enable update

Communication objects per channel: once for all channels

Number	Function	Use	DPT	Direction
111	Centralised function	Simultaneous on/off of more than one output configured as "Switching module" or "Stair light". For "Stair light" the “Stair light time” is not considered and so the output must be switched off from the "Centralised function".	DPT 1.001	In, Write

Standard communication object settings

Communication objects: default output/input settings

Number	Name in ETS	Function in ETS	Length	Priority	Flag 1				
					C	R	W	T	U
1	Out 1	On/off	1 bit	Low	X		X		X
2	Out 1	Stair light	1 bit	Low	X		X		X
3	Out 1	Force	2 bit	Low	X		X		X
4	Out 1	Block	1 bit	Low	X		X		X
5	Out 1	Scenario	1 byte	Low	X		X		X
6	Out 1	State	1 bit	Low	X	X		X	
7	Out 1	Logic 1	1 bit	Low	X		X		X
8	Out 1	Logic 2	1 bit	Low	X		X		X
9	Out 1	Logic 3	1 bit	Low	X		X		X
10	Out 1	Logic 4	1 bit	Low	X		X		X
11	Out 1	Logic 5	1 bit	Low	X		X		X
12	Out 1	Logic 6	1 bit	Low	X		X		X
13	Out 1	Logic 7	1 bit	Low	X		X		X
14... 52	Out 2, Out 3, Out 4	As per Out 1							
1	Out 1/2	Roller shutter Up/Down	1 bit	Low	X		X		X
2	Out 1/2	Slats up/down/stop	1 bit	Low	X		X		X
3	Out 1/2	Stop	1 bit	Low	X		X		X
4	Out 1/2	Scenario	1 byte	Low	X		X		X
5	Out 1/2	Actual direction	1 bit	Low	X	X		X	
6	Out 1/2	Position (Absolute)	1 byte	Low	X		X		
7	Out 1/2	Absolute slat position	1 byte	Low	X		X		
8	Out 1/2	Position (Actual)	1 byte	Low	X	X		X	
9	Out 1/2	Current slat position	1 byte	Low	X	X		X	
10	Out 1/2	Valid actual position	1 bit	Low	X	X		X	
11	Out 1/2	Door to reference	1 bit	Low	X		X		X
12	Out 1/2	Door at limit	1 bit	Low	X		X		X
13	Out 1/2	Upper state - Position	1 bit	Low	X	X		X	
14	Out 1/2	Upper - Lower state	1 bit	Low	X	X		X	
15	Out 1/2	Automatic lock	1 bit	Low	X		X		X
16	Out 1/2	Manual lock mode	1 bit	Low	X		X		X
17	Out 1/2	Move	1 bit	Low	X	X		X	
89	Out 1/2	Warning (Wind)	1 bit	Low	X		X		X
90	Out 1/2	Warning (Rain)	1 bit	Low	X		X		X

Continued

C = Communication, **R** = Read, **W** = Write, **T** = Transmission, **U** = Enable update

Communication objects and ETS parameters

Continued

Number	Name in ETS	Function in ETS	Length	Priority	Flag 1				
					C	R	W	T	U
91	Out 1/2	Warning (Frost)	1 bit	Low	X		X		X
92	Out 1/2	Block	1 bit	Low	X		X		X
27… 43 93… 96	Out 3/4	As per Out 1/2							
97	Automatic A	Automatic operation 1 - Position	1 bit	Low	X		X		X
98	Automatic A	Automatic operation 2 - Position	1 bit	Low	X		X		X
99	Automatic A	Automatic operation 3 - Position	1 bit	Low	X		X		X
100	Automatic A	Automatic operation 4 - Position	1 bit	Low	X		X		X
101	Automatic B	Automatic operation 1 - Position	1 bit	Low	X		X		X
102	Automatic B	Automatic operation 2 - Position	1 bit	Low	X		X		X
103	Automatic B	Automatic operation 3 - Position	1 bit	Low	X		X		X
104	Automatic B	Automatic operation 4 - Position	1 bit	Low	X		X		X
111	Centralised function	On/off	1 bit	Low	X		X		X
53	In 1	Switching module	1 bit	Low	X	X		X	
53	In 1	Send value - up	1 bit	Low	X	X		X	
53	In 1	Short press function	1 bit, 2 bit 1 byte, 2 byte	Low	X	X		X	
53	In 1	Short sequence - Value 1	1 bit 1 byte	Low	X	X		X	
53	In 1	On/Off control	1 bit	Low	X	X		X	
53	In 1	Roller shutter	1 bit	Low	X	X		X	
53	In 1	Reset counter	1 bit	Low	X		X		X
54	In 1	Long press function	1 bit, 2 bit 1 byte, 2 byte	Low	X	X		X	
54	In 1	Counter threshold	1 bit	Low	X	X		X	X
54	In 1	Dimmer Control	4 bit	Low	X	X		X	
54	In 1	Stop roller shutter	1 bit	Low	X	X		X	
55	In 1	Short sequence - Value 3	1 bit 1 byte	Low	X	X		X	
56	In 1	Short sequence - Value 4	1 bit 1 byte	Low	X	X		X	
56	In 1	State	1 bit	Low	X		X	X	X
56	In 1	Counter	1 byte, 2 byte, 3 byte	Low	X	X		X	
56	In 1	Short press toggle state	1 bit	Low	X		X		X
57	In 1	Long press toggle state	1 bit	Low	X		X		X
61	In 1	Object block	1 bit	Low	X		X		X
62… 88	In 2, In 3, In 4	As per In 1							
53	In 1/2	On/Off control	1 bit	Low	X	X		X	
53	In 1/2	Roller shutter	1 bit	Low	X	X		X	
54	In 1/2	Dimmer control	4 bit	Low	X	X		X	
54	In 1/2	Slats/stop control	1 bit	Low	X	X		X	
61	In 1/2	Object block	1 bit	Low	X		X		X
71... 79	In 3/4	As per In 1/2							
105	Virtual pocket	First motion sensor	1 bit	Low	X		X		X
106	Virtual pocket	Second motion sensor	1 bit	Low	X		X		X
107	Virtual pocket	Activity signalling	1 bit	Low	X		X		X
108	Virtual pocket	Door input	1 bit	Low	X		X		X
109	Virtual pocket	Wait time	2 byte	Low	X		X		X
110	Virtual pocket	Presence in room	1 bit	Low	X	X		X	

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Number of communication objects	Max. number of group addresses	Max. number of associations
111	254	255

Communication objects and ETS parameters

Reference ETS parameters

General

The following parameters are exclusive for all channels.

General parameters

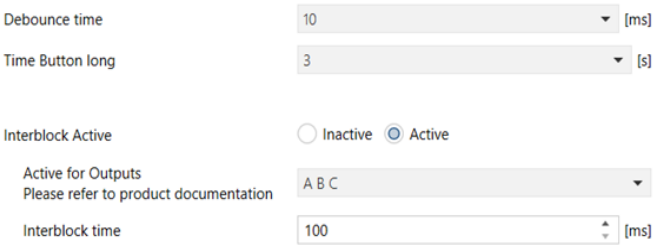
The interlock between outputs is useful for example for the fan-coil controls, to avoid the two inputs from being enabled at the same time.

ETS text	Values available [Default value]	Comment
Debounce time	10..120 ms	Minimum input contact on time
	[10]	
Long time button [s]	0.5-30 sec.	Minimum input contact on time for functions associated to the long press
	[3]	
Interlock enabled	0=off	Only one output (e.g. for the fan coil) can be on at a time
	1=on	
	[0]	
Enabled for outputs	3 = A B	If "interlock enabled": outputs for which it will be on. If "A B" for example, it will not be possible to activate Out 1 and 2 at the same time
	5 = A C	
	9 = A D	
	6 = B C	
	10 = B D	
	12 = C D	
	7 = A B C	
	11 = A B D	
	13 = A C D	
	14 = B C D	
	15 = A B C D	
	[7]	

Continued

Continued

ETS text	Values available [Default value]	Comment
Interlock time [ms]	100-3000	If "interlock enabled": time elapsing between the "Off" of an output and the next "On" of another output interlocked to the previous one
	[100]	

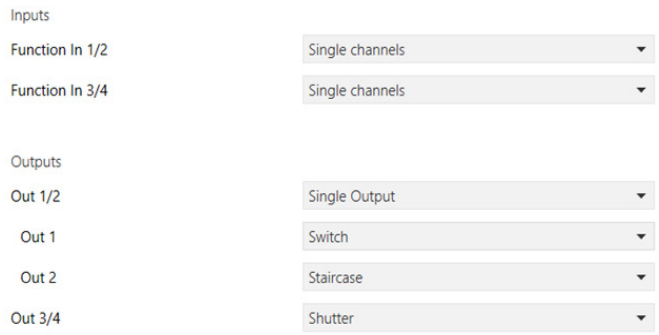


General settings

Parameter configuration

Define the input/output details.

ETS text	Values available [Default value]	Comment
Logic inputs on: - Input function 1/2 - Logic function 3/4	0 = off	Single channels: the two inputs are independent. Grouped channels: using the two inputs together (e.g. with a 20062)
	2 = single channels	
	1 = grouped channels	
	[0]	
Outputs: - Out 1/2 - Out 3/4	0 = Off	For "Single output" you can choose "Switching module" or "Stair light" corresponding to a two-position stable or one-position stable relay.
	1 = Single output	
	2 = Venetian blinds	
	3 = Roller shutter	
	[0]	



Channel configuration. (Example: Single inputs, Output 1 - Switching module, Output 2 - Stair light, Output 3/4 - Roller shutter)

Communication objects and ETS parameters

Outputs

Output: switching module 1... 4

The following parameters are available for each channel and are identical for all of them.

Parameter configuration

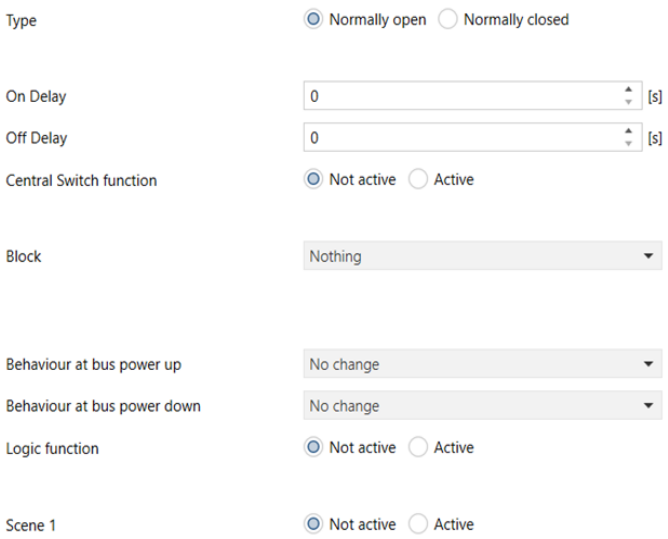
Management of outputs 1/2/3/4 set as switching module.

ETS text	Values available [Default value]	Comment
Type	0 = normally closed	To define if the relay output is normally open or closed
	1 = normally open	
	[1]	
Activation delay	0... 30000 s	Activation delay in seconds
	[0]	
Deactivation delay	0... 30000 s	Deactivation delay in seconds
	[0]	
Centralised control function	0 = off	Centralised function (to control more than one output from the Bus at the same time)
	1 = on	
	[0]	
Block/Force	0 = no action	To block or force an output from the Bus
	1 = Block	
	2 = Force	
State at block state start	0 = Off	If block on
	1 = On	
	2 = no change	
	[2]	
State at block state end	0 = Off	If block on
	1 = On	
	2 = no change	
	[2]	
Behaviour at Bus power on	0 = Off	To define the relay output state at bus power on
	1 = On	
	2 = no change	
	[2]	

Continued

Continued

ETS text	Values available [Default value]	Comment
Behaviour at Bus power off	0 = Off	To define the relay output state at bus power off
	1 = On	
	2 = no change	
	[2]	
Logic function	0 = off	To enable logics on the outputs (AND, OR, XOR) for up to 7 objects
	1 = on	
	[0]	
Scenario	0 = off	Scenario activation If on, an additional page is displayed (Output, secondary element scenario)
	1 = on	
	[0]	



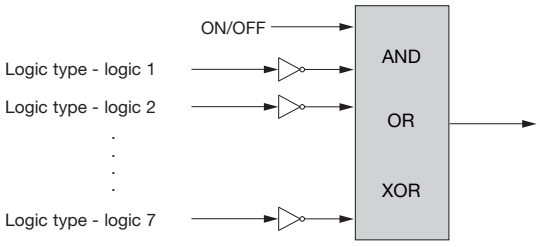
Switching module parameters

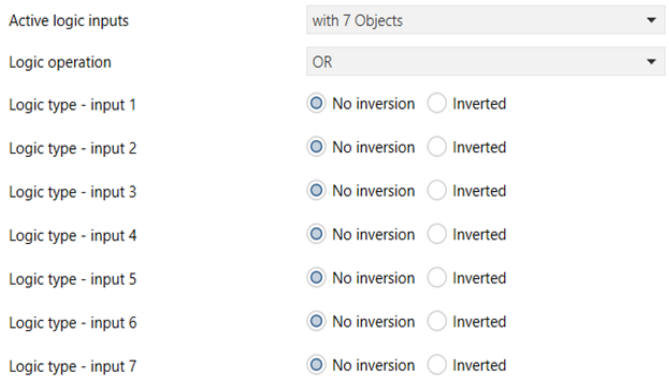
Logic function

The on/off objects can be used with logic objects (1 to 7) to create AND/OR/XOR logic functions to enable or disable the related output (OUT1, OUT2, OUT3, OUT4).

Parameter configuration

ETS text	Values available [Default value]	Comment
Logic inputs on	With 1 object	To enable the objects required for the logic
	....	
	With 7 objects	
	[With 1 object]	
Logic operation	0 = OR	To select the required logic operation
	1 = AND	
	2 = XOR	
	[OR]	
Logic type - input	Not inverted	To define if the selected input must be inverted or not
	Inverted	
	[Not inverted]	





Logic parameters

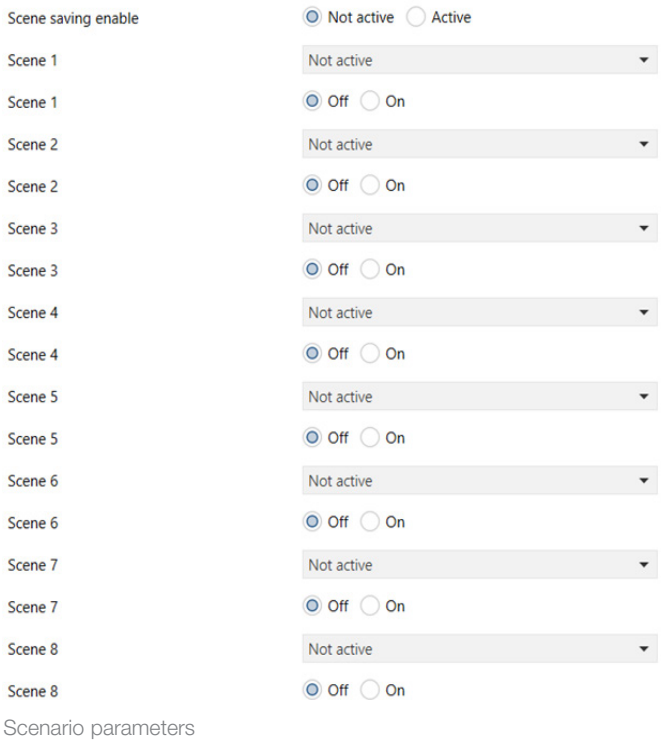
Communication objects and ETS parameters

Output, secondary element scenario

For each output, 8 scenario storage possibilities are available. For each scenario, the scenario index and the On or Off value for the output can be selected.

Scenario parameters (8 scenarios per output)

ETS text	Values available [Default value]	Comment
Store scenarios	0 = Off 1 = On **[0]**	The "Store scenarios" function is used to store the state linked to a scenario with a message from the Bus (scene learn).
Scenario 1	Off 1... 64 **[Off]**	Used to select the scenario index.
Scenario 1	0=Off 1=On **[0]**	To define the relay output state when scenario called up.
Scenario 2	Off 1... 64 **[Off]**	Used to select the scenario index.
Scenario 2	0=Off 1=On **[0]**	To define the relay output state when scenario called up.
Scenario 3	Off 1... 64 **[Off]**	Used to select the scenario index.
Scenario 3	0=Off 1=On **[0]**	To define the relay output state when scenario called up.
Scenario 4	Off 1... 64 **[Off]**	Used to select the scenario index.
Scenario 4	0=Off 1=On **[0]**	To define the relay output state when scenario called up.
Scenario 5	Off 1... 64 **[Off]**	Used to select the scenario index.
Scenario 5	0=Off 1=On **[0]**	To define the relay output state when scenario called up.
Scenario 6	Off 1... 64 **[Off]**	Used to select the scenario index.
Scenario 6	0=Off 1=On **[0]**	To define the relay output state when scenario called up.
Scenario 7	Off 1... 64 **[Off]**	Used to select the scenario index.
Scenario 7	0=Off 1=On **[0]**	To define the relay output state when scenario called up.
Scenario 8	Off 1... 64 **[Off]**	Used to select the scenario index.
Scenario 8	0=Off 1=On **[0]**	To define the relay output state when scenario called up.



Scenario parameters

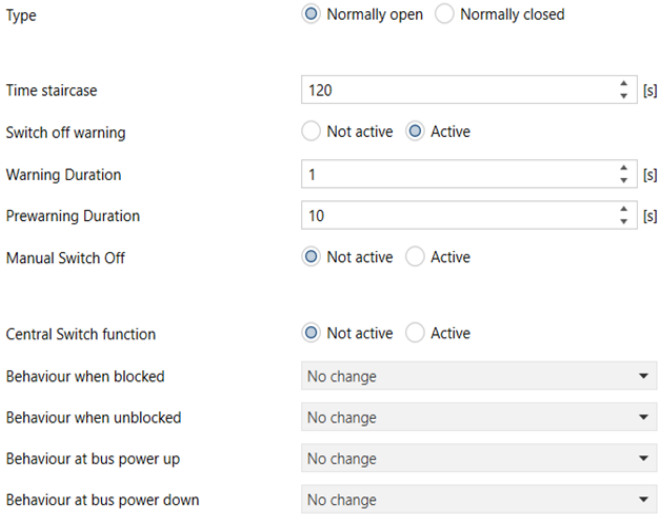
Communication objects and ETS parameters

Output, timed stair light

The following parameters are available for each channel and are identical for all of them. If a channel is configures as stairs the following parameters are visible:

Stair light parameters (one-position stable output management)

ETS text	Values available [Default value]	Comment
Type	0=normally closed 1=normally open **[0]**	To define if the relay output is normally open or closed
Stair Light time [s]	0… 65535 **[120]**	Output activation time
Warning off	0=off 1=on **[0]**	To be able to switch the warning function on
Duration of warning [s]	0… 65535 **[120]**	If "Off warning" is on: having set a “warning time” and a “prewarning time”, when the relay is switched off after the "stair light time" set, this remains Off for a time equal to the "warning time" and then comes on again for a time equal to the "prewarning time"
Duration of pre-warning [s]	0… 65535 **[120]**	Warning time (if "Off warning" is on). Three times will be added. Having set a “warning time” and a “prewarning time”, when the relay is switched off after the "stair light time" set, this remains Off for a time equal to the "warning time" and then comes on again for a time equal to the "prewarning time"
Manual off	0=off 1=on **[0]**	If manual off is active, on receiving an OFF message on the "Stair light" object, if on in one-position stable the output switches off
Centralised switching module function	0=off 1=on **[0]**	To control more than one output from the Bus at the same time
State at block state start	0=Off 1=On 2=no change **[2]**	If block on
State at the end of the block state	0=Off 1=On 2=no change **[2]**	If block on
Behaviour when powering up the Bus	0=Off 1=On 2=no change **[2]**	To define the relay output state at bus power on
Behaviour at Bus power off	0=Off 1=On 2=no change **[2]**	To define the relay output state at bus power off



Stair light parameters

Communication objects and ETS parameters

Automatic parameter activation

These settings activate objects. Each block has 4 objects, used to automatic controls on 4 objects calling up positions (similar to scenarios).

Automatic operation parameters

Parameters in automatic operation

ETS text	Values available [Default value]	Comment
Block A	0=off 1=On **[0]**	For block A objects 1-4 are activated
Block B	0=off 1=On **[0]**	For block B objects 1-4 are activated

Parameters

Venetian blinds parameters: characteristics relating to the control of Venetian blinds with slats

ETS text	Values available [Default value]	Comment
Execution time (sec)	1-10000 **[45]**	Movement time if not stopped
Step time for slats (ms)	100-1000 **[200]**	Sets the short press time for the button to interpret as slat control
Slat control time (ms)	10-10000 **[1200]**	Sets the slat control time for each press
Pause at change of direction (ms)	1-1000 **[500]**	Sets the delay time between the command and the change of direction
Motor start delay (ms)	0-255 **[0]**	Sets the delay time between the command and the start of movement (useful for motor starting)
Motor power-off delay (ms)	0-255 **[0]**	Sets the delay time between the command and the end of movement (limit stop)
Slat position at end of driving	0%-100% **[50]**	Sets the slat position at the end from the reference travel 0-100% having set the limit stop (100% closed)
Slat position at end of driving by absolute value.	0%-100% **[50]**	Sets the slat position at the end of the movement due to the "Position (absolute)" object
Object selection for absolute position	0=off 1=on **[0]**	For feedback on the position on a supervisor, if on, 0%=all up and 100%=all down
Reaction after driving to reference	0=no reaction 1=Door to previous position **[0]**	Only if Position absolute
Driving area: Limitation	0= off 1=on **[0]**	Only if limitation on: sets the upper/lower thresholds of the Venetian blind travel to stop it before the limit stop
Lower limit	0%-100% **[0%]**	Only if limitation on (driving area) (100% = closed)

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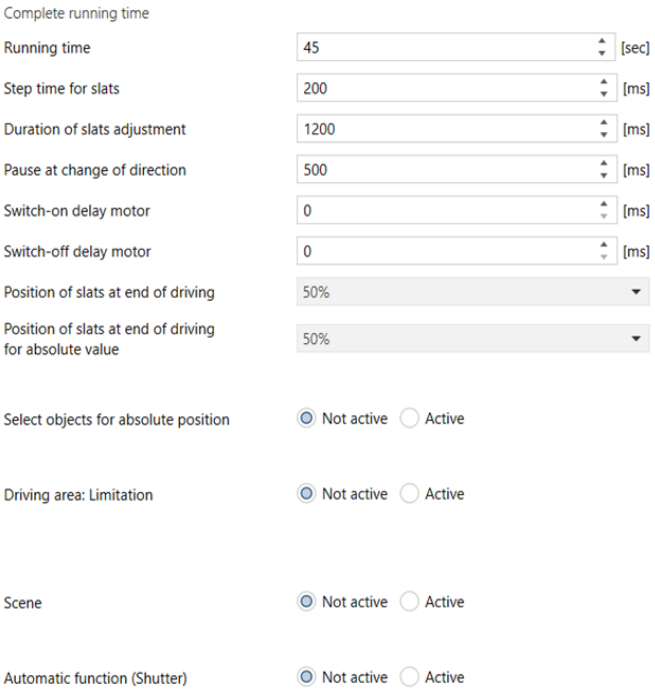


Venetian blinds parameters

Communication objects and ETS parameters

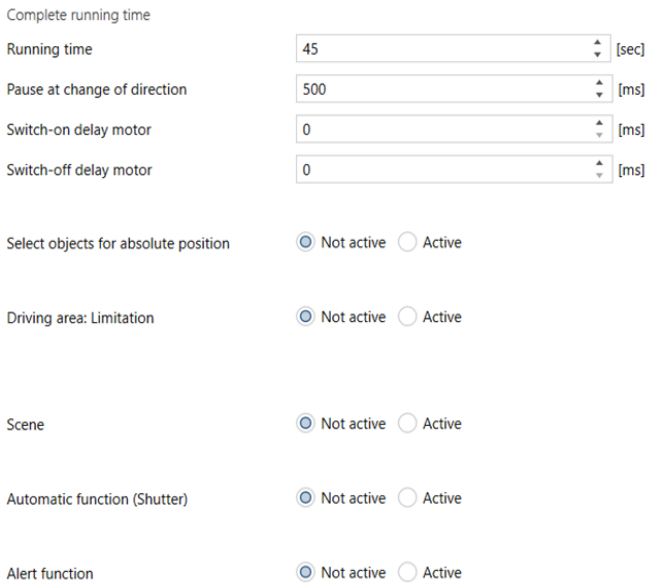
Continued

ETS text	Values available [Default value]	Comment
Upper limit	0%-100%	Only if limitation on (driving area) (100% = closed)
	[100%]	
Scenario	0= off	Enables the Venetian blind to be included in scenarios
	1=on	
	[0]	
Automatic Operation	0= off	Defines the possibility of having the Venetian blind possibilities with 4 objects devoted to their automatic control from the Bus (Rain, Wind, Frost, Block)
	1=on	
	[0]	
Warning Function	0= off	Used to view the section with "Warning-Out" parameters, to enable the ETS obtaining to be switched on/off (e.g. a weather station) and obtain the automatic movement of the Venetian blinds in the event of rain, wind, frost, block-out
	1=on	
	[0]	

Roller shutter parameters: characteristics relating to the control of roller shutters (without slats)

ETS text	Values available [Default value]	Comment
Execution time (sec)	1-10000	Movement time if not stopped
	[45]	
Pause at change of direction (ms)	100÷1000	Sets the delay time between the command and the change of direction
	[500]	
Motor start delay	0÷255	Sets the delay time between the command and the start of movement (useful for motor starting)
	[0]	
Motor power-off delay	0÷255	Sets the delay time between the command and the end of movement (limit stop)
	[0]	
Select objects for absolute position	0 = Off	Selects the possibility or not to use communication objects to view the actual position of the roller shutter (0%=all up, 100%=all down) for feedback of the position on a supervisor
	1 = Door to previous position	
	[0]	
Reaction after driving to reference	0 = No reaction	If "Select objects for absolute position" on
	1 = Door to previous position	
	[0]	
Driving area: limitation	0 = Off	Only if limitation on: sets the upper/lower thresholds. of the Venetian blind travel to make it stop before the limit stop
	1 = On	
	[0]	
Lower limit	0%... 100%	If "Driving area" on (100% = closed)
	[0%]	
Upper limit	0%... 100%	If "Driving area" on (100% = closed)
	[100%]	

Continued



Roller shutter parameters

Communication objects and ETS parameters

Continued

ETS text	Values available [Default value]	Comment
Scenario	0 = Off 1 = On **[0]**	Enables the roller shutter to be included in scenarios
Automatic operation	0 = Off 1 = On **[0]**	Defines the possibility of having the required roller shutter position with 4 objects devoted to their automatic control from the Bus (rain, wind, frost, block)
Warning Function	0 = Off 1 = On **[0]**	Used to view the section with "Warning-Out" parameters, to enable the ETS obtaining to be switched on/off (e.g. a weather station) and obtain the automatic movement of the roller shutters in the event of rain, wind, frost, block-out

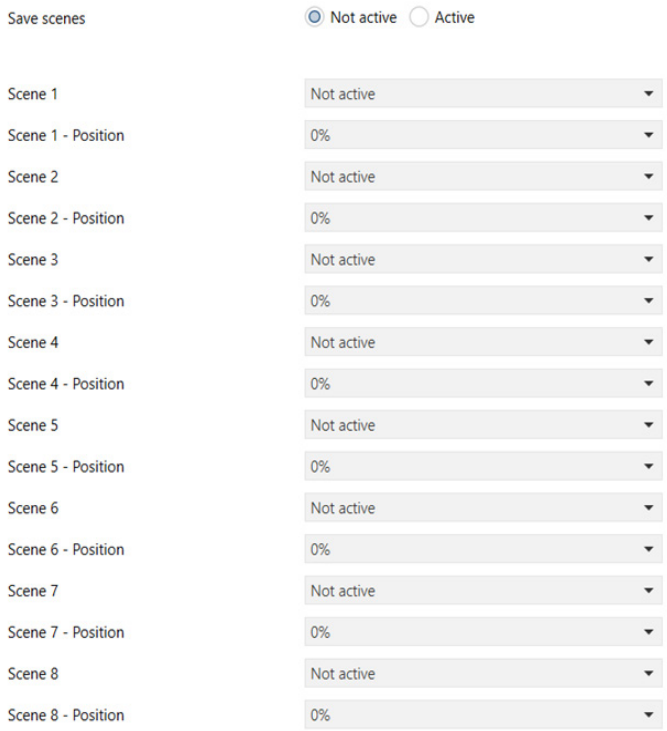
Scenarios

For each channel, 8 scenarios can be stored and called up. For each scenario, it is possible to select the scenario index, the position of the roller shutter and slats (only for Venetian blinds).

Scenario parameters: scenario management

ETS text	Values available [Default value]	Comment
Store scenarios	0=off 1=on **[0]**	The "Store scenarios" function is used to store the state linked to a scenario with a message from the Bus (scene learn).
Scenario 1	1-64 Off **[Off]**	Used to select the scenario index.
Scenario 1 Position	0%-100% **[0]**	Used to select the roller shutter position when the scenario is called up
Scenario 1 - Slats position	0%-100% **[0]**	Used to select the position of the slats when the scenario is called up (Venetian blinds only)
…		
Scenario 8		

The Store scenarios function is used to store the state linked to a scenario with a message from the Bus (scene learn).



Scenario parameters

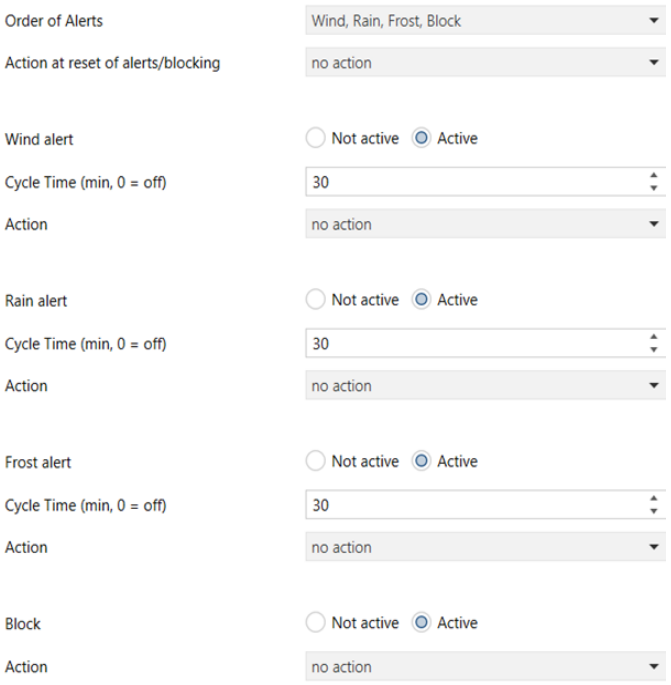
Communication objects and ETS parameters

Warnings Out 1/2 and 3/4

Warnings Parameters:
if the "Warning Function" parameter is enabled on the output, to define the operations to be performed automatically in the event of
the objects "Rain, Wind, Frost, Block" being activated by the Bus (by interaction with weather stations)

ETS text	Values available [Default value]	Comment
Warning order	0 = Wind, Rain, Frost, Block	To give a priority to the warnings
	1 = Wind, Rain, Block, Frost	
	2 = Wind, Block, Rain, Frost	
	3 = Block, Wind, Rain, Frost	
	[0]	
Action after warnings/block reset	0 = No action	What the output does (Venetian blinds/roller shutter) when the warning or block ends
	4 = Door to previous position	
	1 = Door to higher level	
	2 = Door to lower level	
	[0]	
"Wind" warning	0 = Off	
	1 = On	
	[0]	
Cycle time (min, 0 = Off)	0-120	From the moment the alarm is triggered, a time can be set after which the alarm condition is reset (if no other messages are received)
	[30]	
Action	0 = No action	Defines what happens in the event of a "Wind" alarm
	1 = Door to higher level	
	2 = Door to lower level	
	[0]	
"Rain" warning	0 = Off	
	1 = On	
	[0]	
Cycle time (min, 0 = Off)	0-120	From the moment the alarm is triggered, a time can be set after which the alarm condition is reset (if no other messages are received)
	[30]	
Action	0 = No action	Defines what happens in the event of a "Rain" alarm
	1 = Door to higher level	
	2 = Door to lower level	
	[0]	

Continued



Warnings Parameters

Continued

ETS text	Values available [Default value]	Comment
"Frost" warning	0 = Off	
	1 = On	
	[0]	
Cycle time (min, 0 = Off)	0-120	From the moment the alarm is triggered, a time can be set after which the alarm condition is reset (if no other messages are received)
	[30]	
Action	0 = No action	Defines what happens in the event of a "Frost" alarm
	1 = Door to higher level	
	2 = Door to lower level	
	[0]	
Block	0 = Off	
	1 = On	
	[0]	
Action	0 = No action	
	1 = Door to higher level	
	2 = Door to lower level	
	[0]	

Communication objects and ETS parameters

Automatic operation

In this point the object block and required position are assigned, if the “Automatic operation” parameter is enabled on the output.

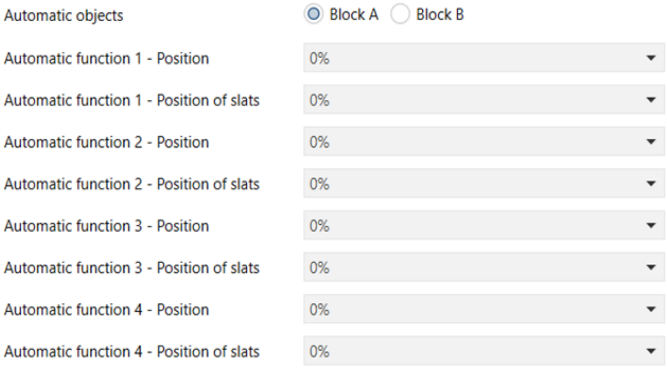
Automatic parameters

ETS text	Values available [Default value]	Comment
Automatic objects	Block A Block B **[Block A]**	The automatic operations are divided into 2 blocks A and B that can be associated to outputs 1/2 and 3/4.
Automatic operation 1 (-4) - Position	0%-100% **[0%]**	For each of the 4 automatic operations, it is possible to define the roller shutter position (100% = Closed)
(-4) - Blind position	0%-100% **[0%]**	For each of the 4 automatic operations, it is possible to define the slat position (100% = Closed)

Note.

Automatic 1 = position 1 - position 2 - position 3 - position 4.

Automatic 2 = position 1 - position 2 - position 3 - position 4.

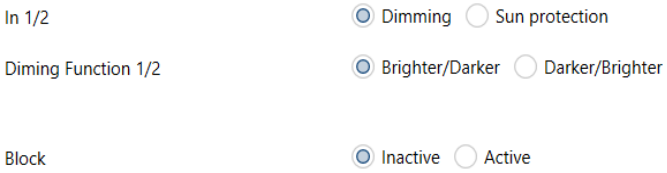


Automatic operation parameters

Inputs

Input, grouped channels 1/2 and 3/4, dimmer control

The parameters in the window to the side are available for each channel and are identical for all of them.



Dimmer control parameters - grouped channels

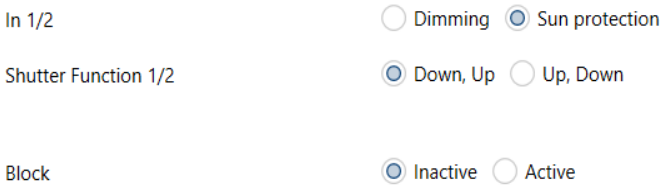
Input, grouped channels, roller shutter control

The following parameters are available for each channel and are identical for all of them.

Grouped parameters

Select the input 1/2 and 3/4 functions - dimmer or roller shutter control.

ETS text	Values available [Default value]	Comment
Input 1/2 Input 3/4	0: dimmer control 1: roller shutter control **[2]** Off	Defines the type of command of the pair of inputs
Function control 1/2 Function control 3/4	0: increase/ decrease 1: decrease/ increase **[0]**	Defines the function associated to the contact closing on IN 1 or IN 2 (or IN 3 and IN 4)
Roller shutter function 1/2 Roller shutter function 3/4	0: Down/Up 1: Up/Down **[0]**	Defines the function associated to the contact closing on IN 1 or IN 2 (or IN 3 and IN 4)
Block	0: Off 1: On **[0]**	To enable the block of channels 1/2 and 3/4 from the Bus



Roller shutter control parameters - grouped channels

Communication objects and ETS parameters

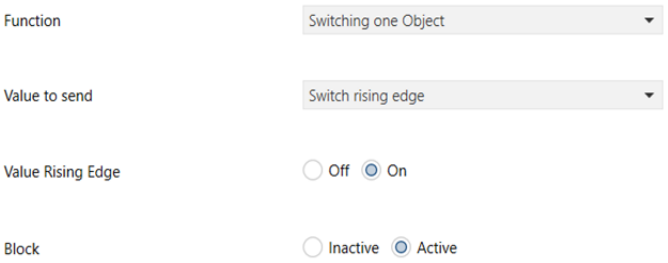
Single channels 1, 2, 3, 4:
the inputs work independently

For each channel there are 6 options:

- Off
- Switching to an object
- Switching to several objects
- Dimmer control with single button
- Roller shutter control with single button
- Counter

Switching to an object parameters (for sending commands)

ETS text	Values available [Default value]	Comment
Function secondary	0 = Rising edge switching	Rising edge = IN contact closing Falling edge = IN contact opening Select "Switching module" to send an On or Off for the chosen edge, an no sending when the input state is next changed. If "Toggle" is set for each selected edge On/Off/On will be sent in sequence, etc. (but the input state object must also be linked to the same group).
	1 = Toggle rising edge	
	2 = Rising edge switching module	
	3 = Toggle falling edge	
	[1]	
Falling edge value	0 = Off	If "Switching module" is set to "Falling edge" or "Send state"
	1 = On	
	[0]	
Rising edge value	0 = Off	If "Switching module" is set to "Rising edge" or "Send state"
	1 = On	
	[0]	
Value type	1...3000	If the switching module-input is set to "Send value"
	[1]	
Value	1 = Number	Select whether to send a number 0÷255 or a Float 0÷65535 (percentage)
	2 = Float	
	[1]	
Number value	0...255	If the value to send is a number
	[2]	
Float value in degrees 1/100	0-65535	If the value to send is a 1/100 percentage
	[2000]	
Block	0 = off	Enabling this, an object appears that if set to "1" blocks the possibility to control the input
	1 = on	
	[0]	



Switching to an object parameters, rising edge

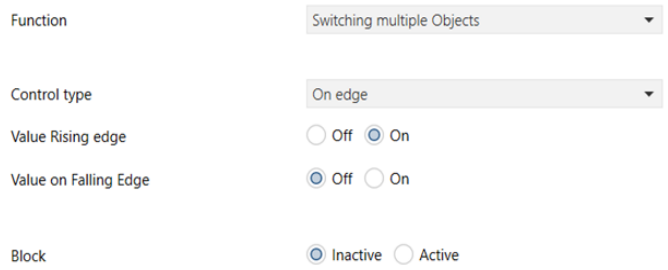
Communication objects and ETS parameters

Switching module parameters for several objects (to send commands and values)

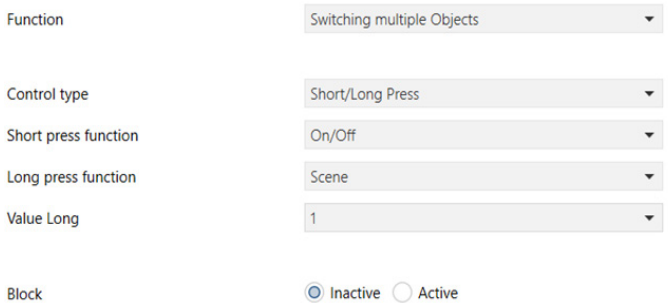
You can select whether to send commands (e.g. "On") or a value (e.g. “1 byte”) on an input short press, and another (e.g. "Off") or a value (e.g. “2 bytes”) on a long press. The time for determining a long press is set in the general parameters.

ETS text	Values available [Default value]	Comment
Type of control	0 = On the edge	On the edge = to be able to select whether to send On or Off on the rising or falling edge on 2 objects Short/Long press = to be able to send commands/ Values on a short and long press on 2 or more objects Value = to send values of 1 byte or 2 bytes on a short and long press on 2 objects Sequence = to be able to send sequence cycles of 1 bit or 1 byte on a maximum of 4 objects with short and long press
	1 = Short/Long press	
	2 = Value	
	3 = Sequence	
	[0]	
Values by type of control “On the edge”	0 = Rising edge value	Used to select whether to send On or Off to the rising edge
	1 = Falling edge value	Used to select whether to send On or Off to the falling edge
	[0]	
Values by type of control “Short/Long press”. The indicated values can be selected fro both short press and long press	No reaction	No action on short press (…long)
	0 = On/Off	Toggle On/Off on short press (…long)
	1 = On	Send On on short press (… long)
	2 = Off	Send Off on short press (… long)
	3 = Scenario	Call up scenario on short press (…long)
	4 = Store scenario	Store scenario on short press (…long)
	5 = Force On	Request forcing to On on short press (…long)
	6 = Force Off	Request forcing to Off on short press (…long)
	7 = Disable forcing	Request force disabling on short press (…long)
	8 = Force On/ deactivation	Toggle forcing on and disabling forcing on short press (…long)
	9 = Forced Off/ deactivation	Toggle forcing off and disabling forcing on short press (…long)
	[0]	
Values by type of control “Value”	0 = 1 byte	Possibility to select a 1 byte value to send on short press (…long)
	1 = 2 bytes	Possibility to select a 2 bytes value to send on short press (…long)
	[0]	

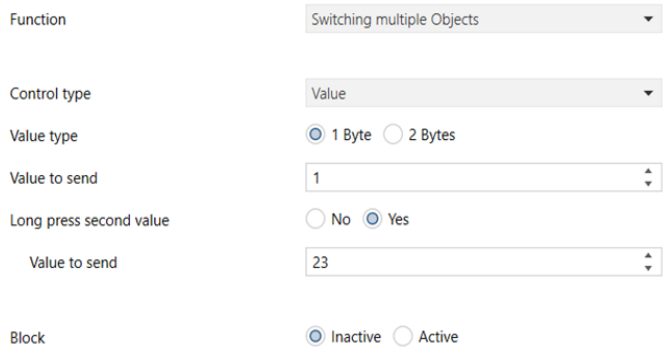
Continued



Values by type of control “On the edge”



Values by type of control “Short/Long press” with toggle on short press and call up scenario 1 on long press

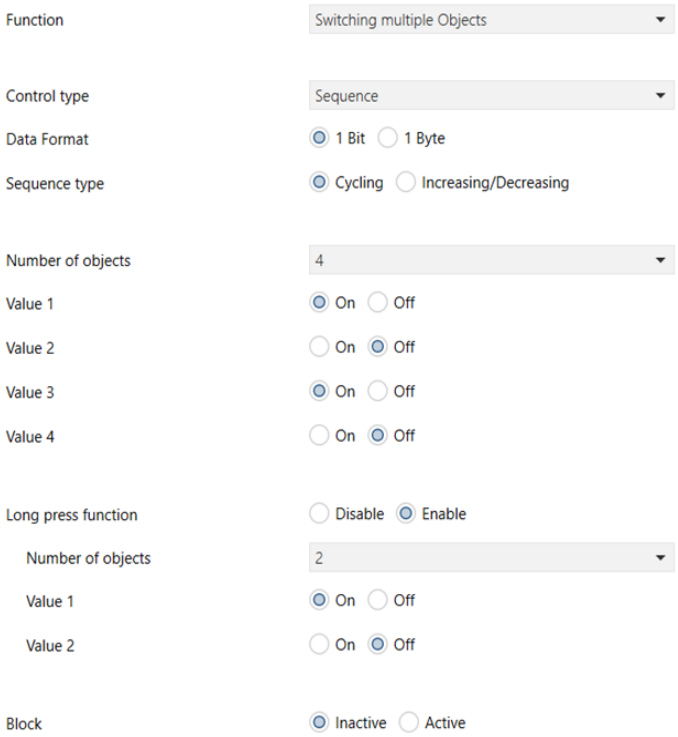


Values by type of control “Value” with sending a value 1 byte on short press and value 23 on long press

Communication objects and ETS parameters

Continued

ETS text	Values available [Default value]	Comment
Values by type of control "Sequence"	0 = 1 bit	Cyclical: possibility to send a bit sequence on a number of objects 2÷4 with sequence 1,2,… , 1,2, …
		Increasing/decreasing: possibility to send a bit sequence on a number of objects 2÷4 with sequence 1,2,… , 2,1,2, …
	1 = 1 byte	Cyclical: possibility to send a byte sequence on a number of objects 2÷4 with sequence 1,2,… , 1,2, …
		Increasing/decreasing: possibility to send a byte sequence on a number of objects 2÷4 with sequence 1,2,… , 2,1,2, …
	[0]	

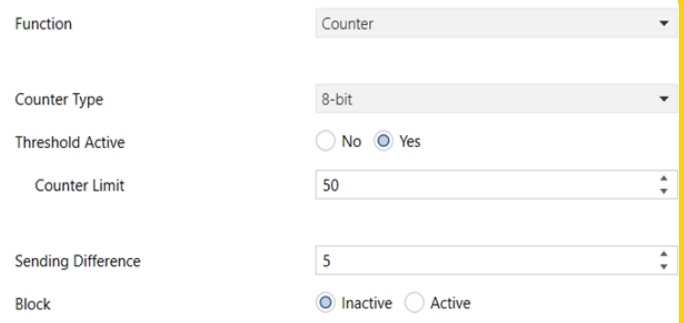


Values by type of control "Sequence" with cyclical sending of a bit on 4 objects on short press and cyclical sending of a bit on 2 objects on long press

"Counter" parameters

To increase a counter with the input (reset when the Bus is powered off).

ETS text	Values available [Default value]	Comment
Type of counter	1 = 8 bit	When the input contact is closed a counter is increased
	2 = 16 bit	
	3 = 32 bit	
	[1]	
Threshold on	0 = Off	A limit can be set for the counter
	1 = On	
	[0]	
Send difference (8 bit)	0-255	Define every how many pulses the value must be sent to the Bus
	[5]	
Counter limit (8 bit)	0-255	(if the "Threshold on" parameter is on) when this value is reached a warning bit is sent to the Bus
	[50]	
Send difference (16 bit)	0-65535	16 bit
	[100]	
Counter limit (16 bit)	0-653535	16 bit
	[200]	
Send difference (32 bit)	0-2147483647	32 bit
	[250]	
Counter limit (32 bit)	0-2147483647	32 bit
	[500]	
Block	0 = Off	To inhibit the input command from the Bus
	1 = On	
	[0]	



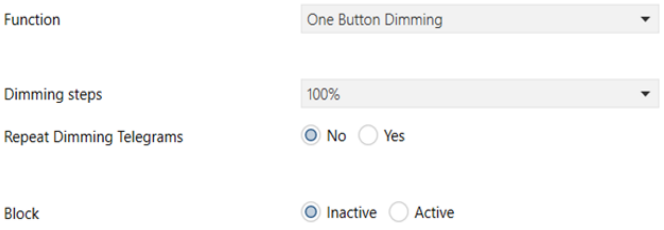
Counter parameters

Communication objects and ETS parameters

"Single button control" parameters

To control a dimmer with a single input when the short press of an N.O. button switches it On/Off and a long press runs the cyclical positive/negative control until released.

ETS text	Values available [Default value]	Comment
Control steps	100%	Sets the control speed
	50%	
	25%	
	12.5%	
	6%	
	3%	
	1.5%	
	[100%]	
Repeat control telegrams	0 = No	Sets the control mode (continuous or step-step)
	1 = Yes	
	[0]	
Repeat time (s)	0.3÷5	If the control telegram repetition is on
Block	0 = No	The use of the input can be blocked with a bit "1" sent from the Bus to the specific object
	1 = Yes	
	[0]	

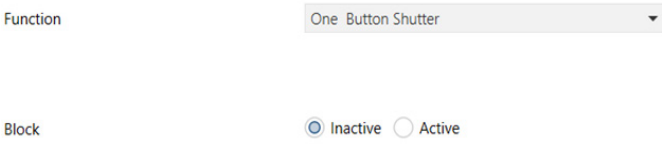


"Dimmer control with one button" parameters

"Roller shutter control with single button" parameters

To control a roller shutter with a single input when the short press of an N.O. button stops it and a long press moves it.

ETS text	Values available [Default value]	Comment
Block	0 = Off	The use of the input can be blocked with a bit "1" sent from the Bus to the specific object
	1 = On	
	[0]	



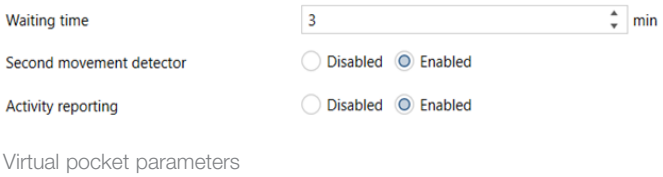
"Roller shutter control with single button" parameters

Communication objects and ETS parameters

Virtual pocket

The virtual pocket function can be enabled by selecting "Enabled" in the "Input/Output configuration" page. This function is used to check if a room is occupied and signal it in the 1 bit object “Presence in room”. To implement the function, at least a motion sensor and a room access door opening and closing signal must be used. The use of another motion sensor or the configuration of an object signalling activity in the room are optional.

The following parameters are available for this function



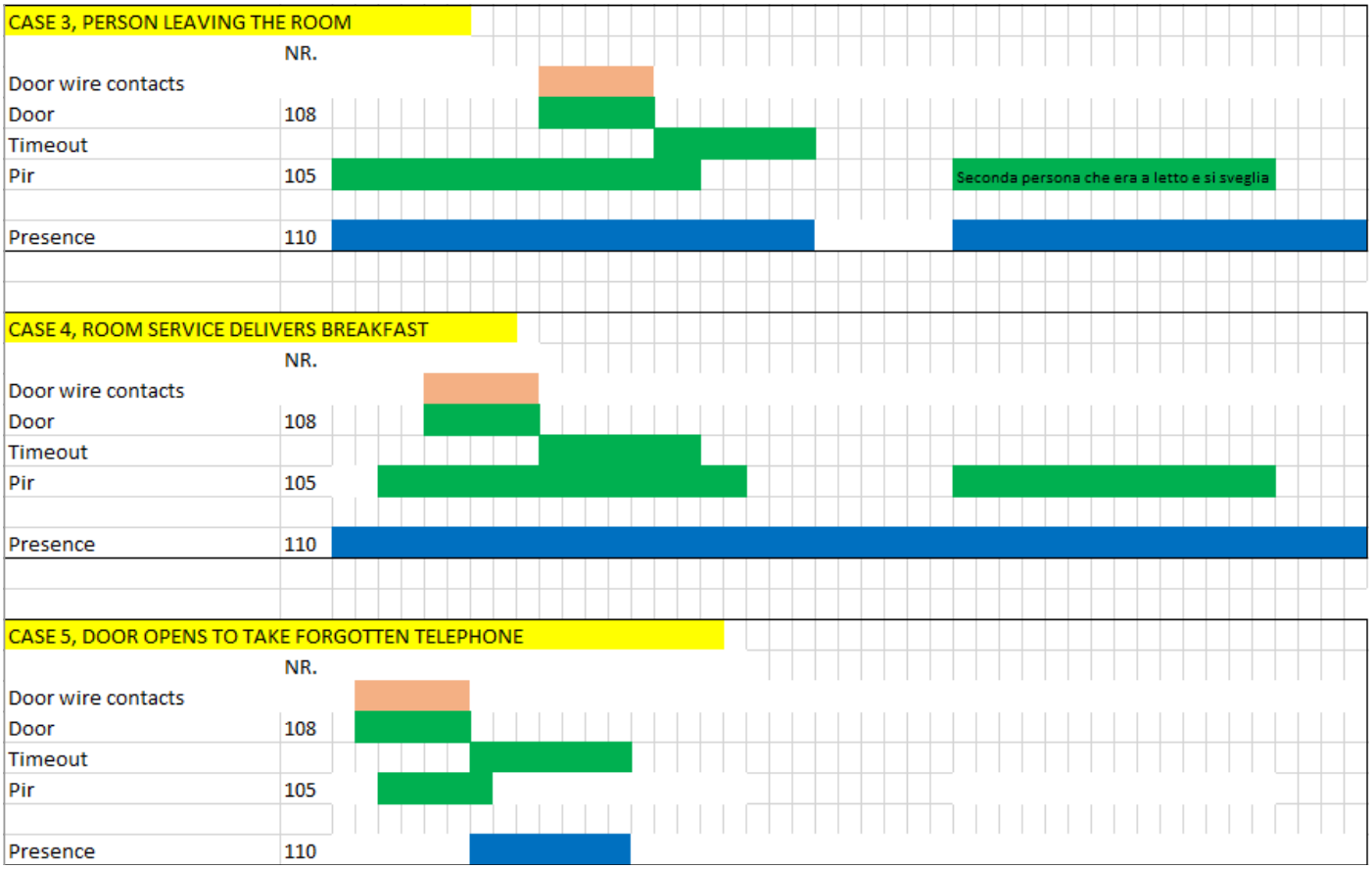
Virtual pocket parameters

ETS text	Values available [Default value]	Comment
Wait time	0÷65535 min	To select the presence in room detection wait time from the bus
	[5]	
Second motion sensor	Disabled	To enable a second motion sensor that can signal the presence in the room
	Enabled	
	[Disabled]	
Activity signalling	Disabled	If this parameter is enabled, any command received on the “Activity signalling” object signals the presence in the room
	Enabled	
	[Disabled]	

The graphics below illustrate some cases of using the “virtual pocket” function. In all cases, the door opening and closing is signalled (received on the “Door input” object), as is the movement on a PIR (received on the “First motion sensor” object) and the room occupied is sent (on the “Presence in room” object).

General note: The motion sensor disabling time must be less than the timeout (“Wait time” parameter or “Wait time” object) for leaving the room. In this way, at the end of the timeout, the “Presence in room” signal is disabled and the room can be placed in the “not occupied” state.

Communication objects and ETS parameters



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