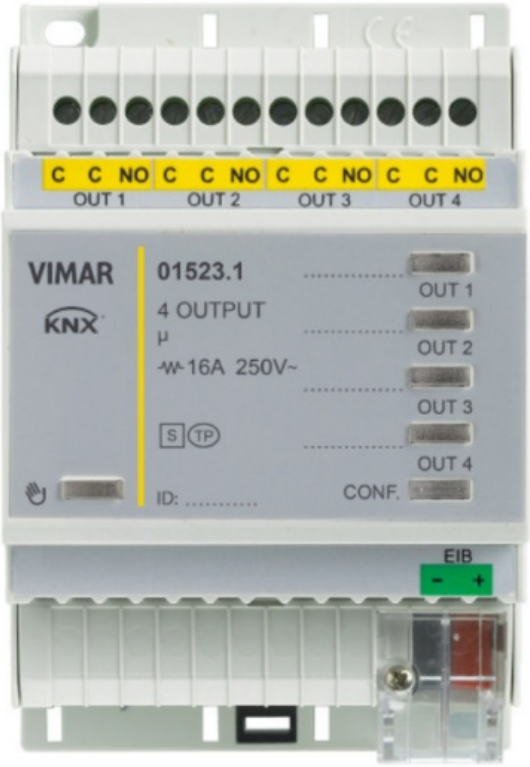
VIMAR 01523.1 250V 16A 4-Output Actuator KNX Installation Guide

Installer manual



01523.1
Multifunction actuator, 4 relay outputs, NO 16 A 250 V~.
BUILDING AUTOMATION
WELL-CONTACT PLUS

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.

Contents

output device

General characteristics and functions
Actuator with 4 NO relay outputs 16 A 250 V~, programmable with control function for lights, roller shutters with slat orientation, push buttons for local control, KNX standard, installation on DIN rails (60715 TH35), occupies 4 modules size 17.5 mm.

General characteristics

The device is designed to manage 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.).
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

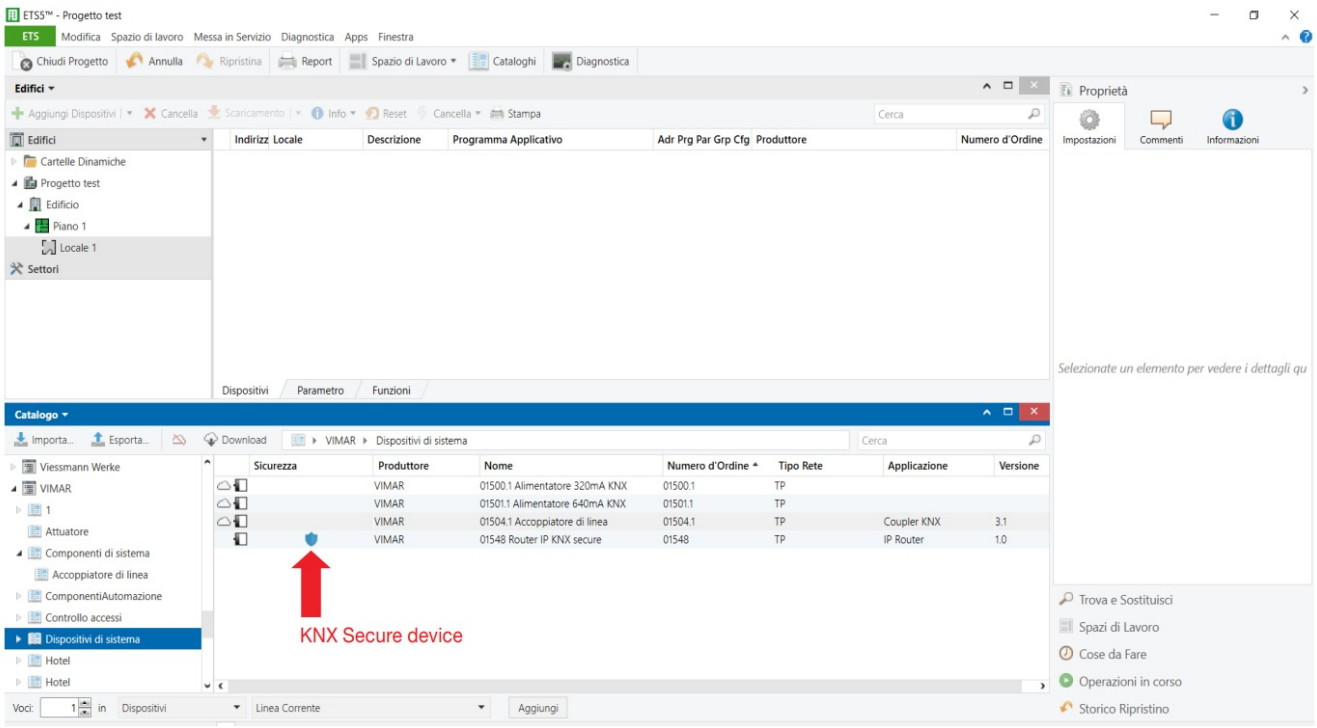
Manual operation
Press the push button to enter manual mode to check the output connections. Press push buttons OUT1, OUT2, OUT3, OUT4 to control the related outputs. During manual operation, outputs OUT1/OUT2 and OUT3/OUT4 are interlocked to prevent damaging any motors connected, and messages received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

Behavior after powering on/off the Bus
Bus off: depending on the parameter settings.
Bus on: depending on the parameter settings.

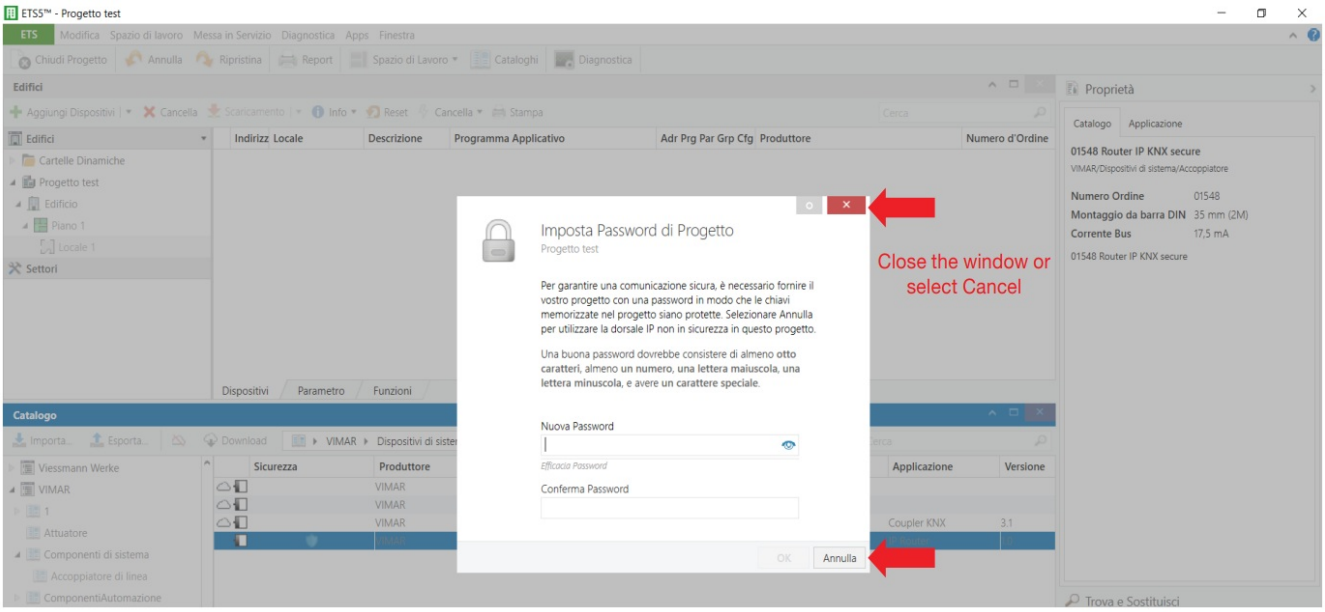
Behavior after reset
As for Bus power-on.

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.

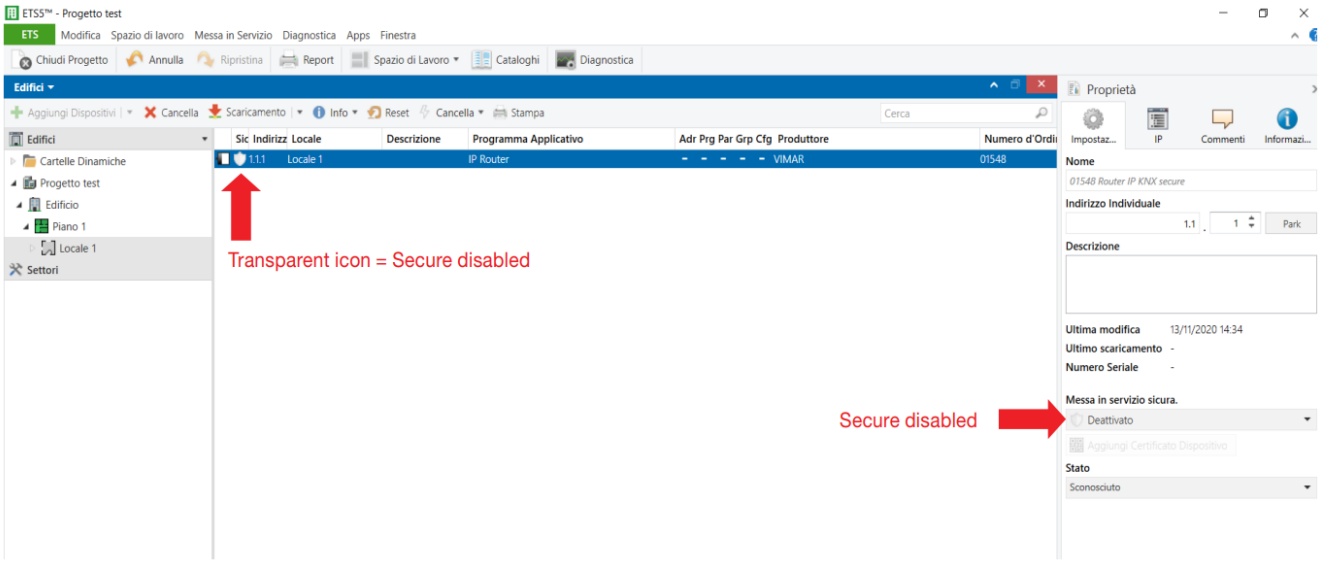
1. Add the Secure device to the ETS project.



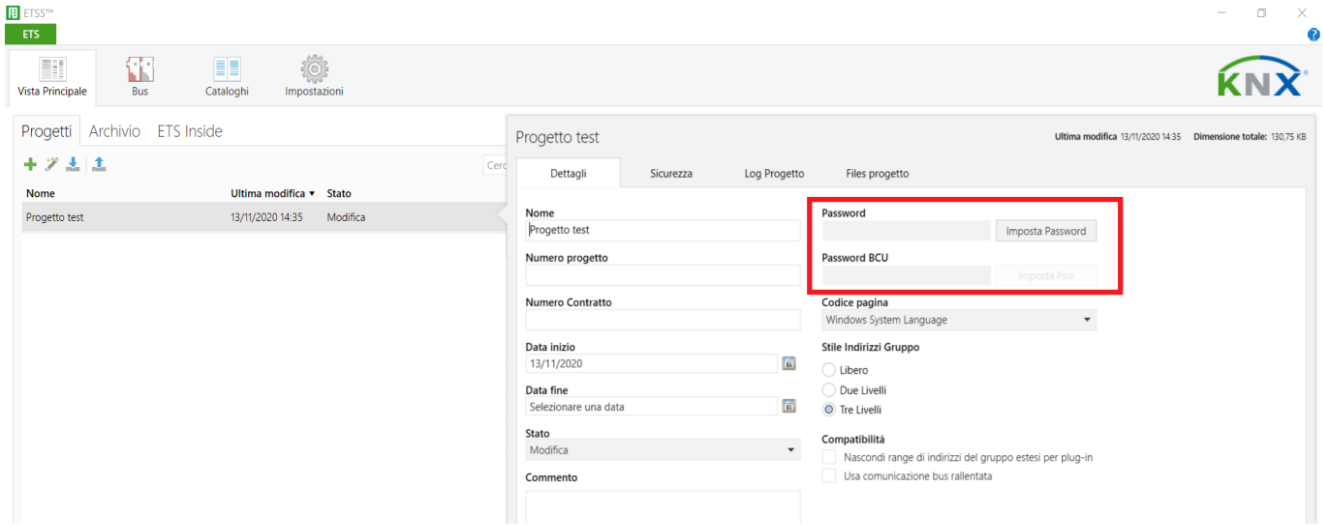
2. Ignore the set password request.



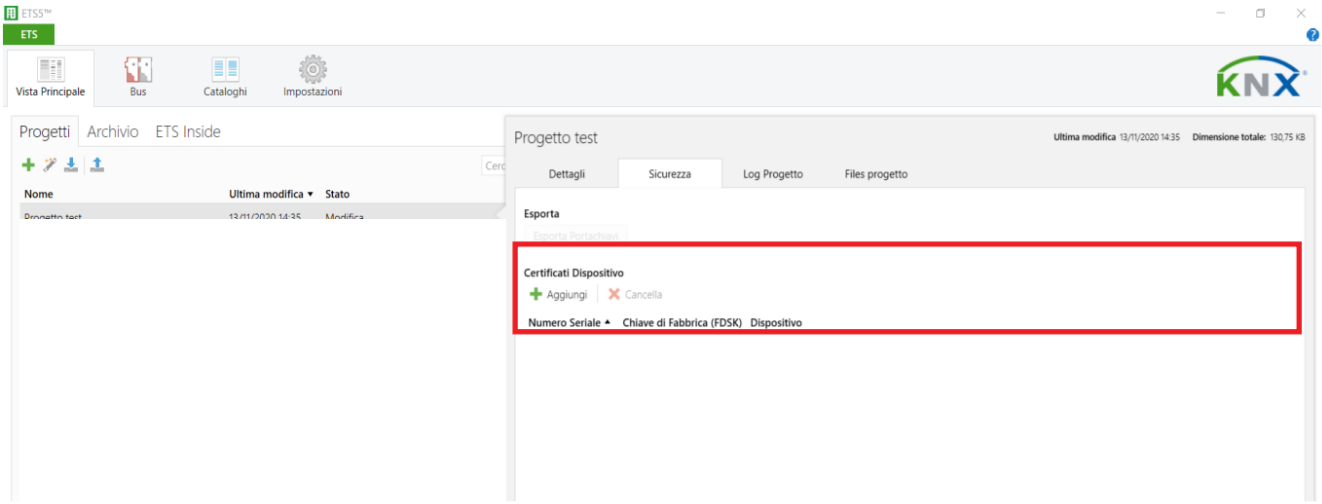
3. The device is displayed with the Secure part disabled.



4. No password is associated to the project.



5. No certificate is associated to the project.



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

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 per channel

Number	Name in ETS	Function in ETS	Description	Length	Flag 1				
					C	R	W	T	U
OUTPUTS single outputs			With outputs OUT1, OUT2, OUT3 and OUT4 configured as						

1	Out 1	On/ off	(If the output is enabled as “Switching module”) to switch the output On/ Off	1 bi t	X		X		X
2	Out 1	Stair light	(If the output is enabled as “Stair Light”) to swi tch the output on, with timed switch-off.	1 bi t	X		X		X
3	Out 1	Force	(If the output “Block” parameter is on, with “Fo rce” function) to force the output On/Off from t he Bus	2 bi t	X		X		
4	Out 1	Block	((If the output “Block” parameter is on, with “Bl ock” function) to block the output control from t he Bus	1 bi t	X		X		X
5	Out 1	Scenario	(If the output “Scenario” parameter is on), to a ctivate and, if required, store (if the parameter i s 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 bi t	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 bi t	X		X		X
14… 2 6	Out 2 (s ee simil ar objects f or Out 1)		As per Out 1						
27… 3 9	Out 3 (s ee simil ar objects f or Out 1)		As per Out 1						

40… 52	Out 4 (see similar objects for Out1)		As per Out 1						
OUTPUTS oller shutter or Venetian blinds				With outputs OUT1/OUT2 and OUT3/OUT4 configured as r					
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 shut- ter 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 ob- jects 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
13	Out 1/2	Upper state – Position	(If the output is on as “Venetian blinds” or “Roller shutter” and “select ob- jects for absolute position” is on) The device sends a bit to 1 when the upper limit stop is reached.	1 bit	X	X		X	

Continued

Number	Name in ETS	Function in ETS	Description	Length	Flag 1				
					C	R	W	T	U
14	Out 1/2	Lower state – Position	(If the output is on as “Venetian blinds” or “Roller shutter” and “select ob-jects 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) An 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		
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 signaling	(If the “Virtual pocket” function is on and “Activity signaling” is enabled) To receive an indication from a second motion sensor.	1 bit	X		X		X
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	

Communication objects per channel: once for all channels

Number	Function	Use	DPT	Direction
111	Centralized 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
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

Continued

Number	Name in ETS	Function in ETS	Length	Priority	Flag 1				
					C	R	W	T	U
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	Centralized function	On/off	1 bit	Low	X		X		X
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 signaling	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	

Reference ETS parameters

General

The following parameters are exclusive for all channels.

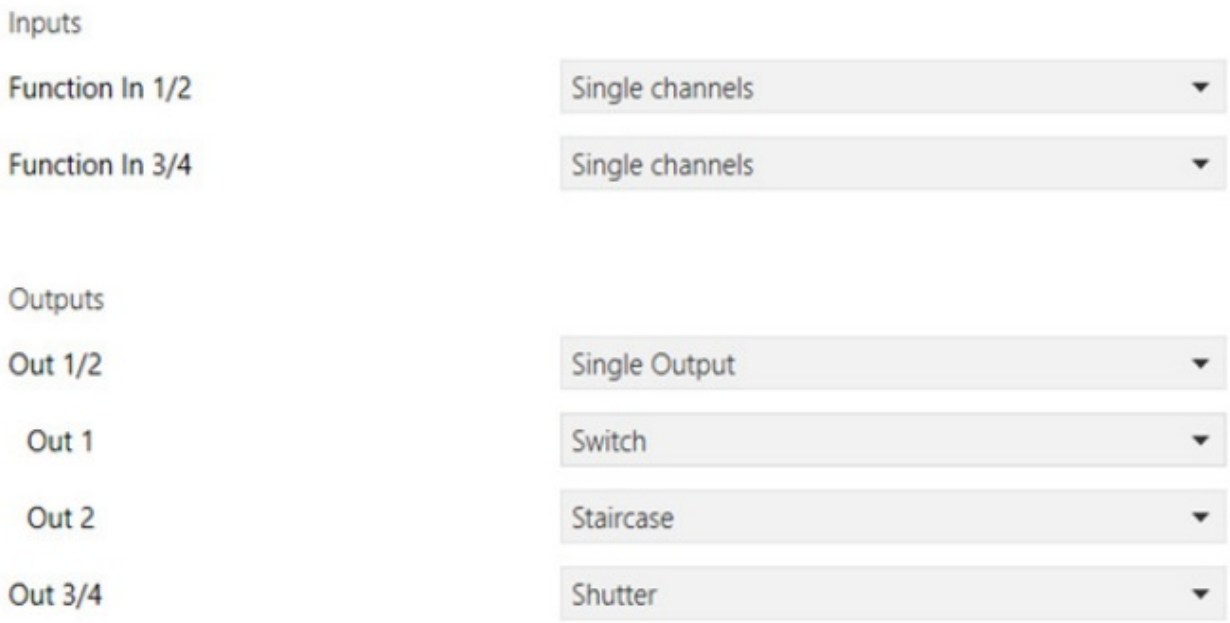
Output configuration

Define the output details.

ETS text	Values available [Default value]	Comment
	0 = Off	
	1 = Single output	

Outputs: – Out 1/2 – Out 3/4	2 = Venetian blinds	For “Single output” you can choose “Switc hing module” or “Stair light” corresponding- ing to a two-position stable or one-position stable relay.
	3 = Roller shutter	
	[0]	
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”: out- puts for which it will be on. If “A B” for example, it will not be possible to activate Out 1 and 2 at the sa me 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]	



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

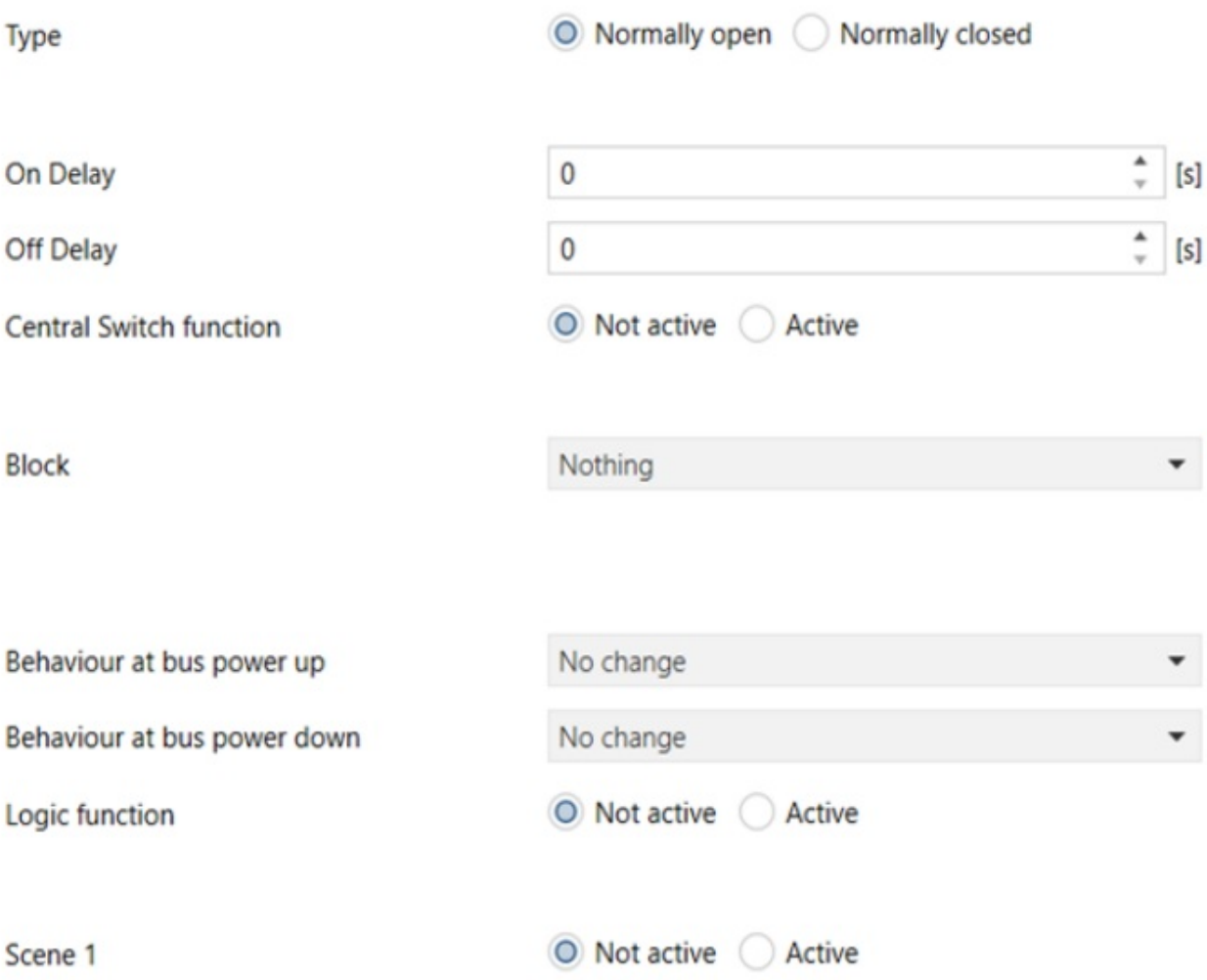
Outputs
Output: switching module 1… 4
The following parameters are available for each channel and are identical for all of them.
Parameter configuration
Management of outputs 1/2/3/4 set as switching module.

ETS text	Values available	Comment
	[Default value]	
Type	0 = normally closed	To define if the relay output is normally op en 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	Centralized 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 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]	
Behavior at Bus power on	0 = Off	To define the relay output state at bus power on
	1 = On	
	2 = no change	
	[2]	

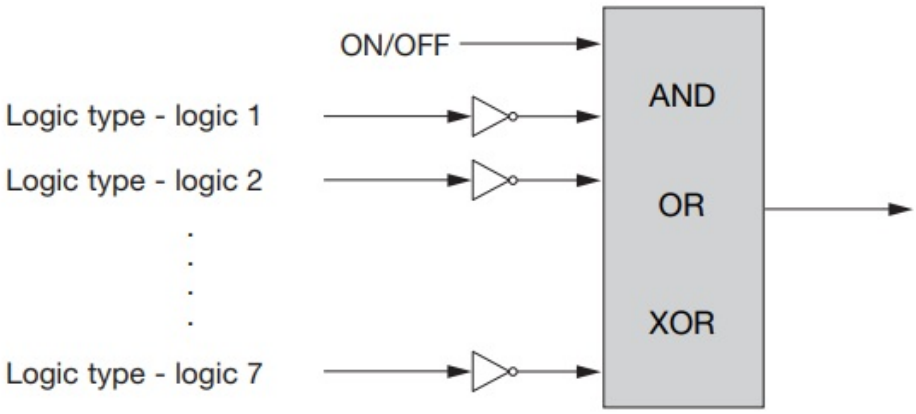
Continued		
ETS text	Values available	Comment
	[Default value]	
Behavior at Bus power off	0 = Off	To define the relay output state at bus pow er off
	1 = On	
	2 = no change	
	[2]	
Logic function	0 = off	To enable logics on the outputs (AND, OR, XOR) for up to 7 objects
	1 = on	
	[0]	
Scenario	0 = off	Scenario activation If on, an additional pag e is displayed (Output, second- any eleme nt scenario)
	1 = on	
	[0]	



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	Comment
	[Default value]	
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 in- put must be inv erted or not
	Inverted	
	[Not inverted]	



Active logic inputs	with 7 Objects
Logic operation	OR
Logic type - input 1	No inversion / Inverted
Logic type - input 2	No inversion / Inverted
Logic type - input 3	No inversion / Inverted
Logic type - input 4	No inversion / Inverted
Logic type - input 5	No inversion / Inverted
Logic type - input 6	No inversion / Inverted
Logic type - input 7	No inversion / Inverted

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)

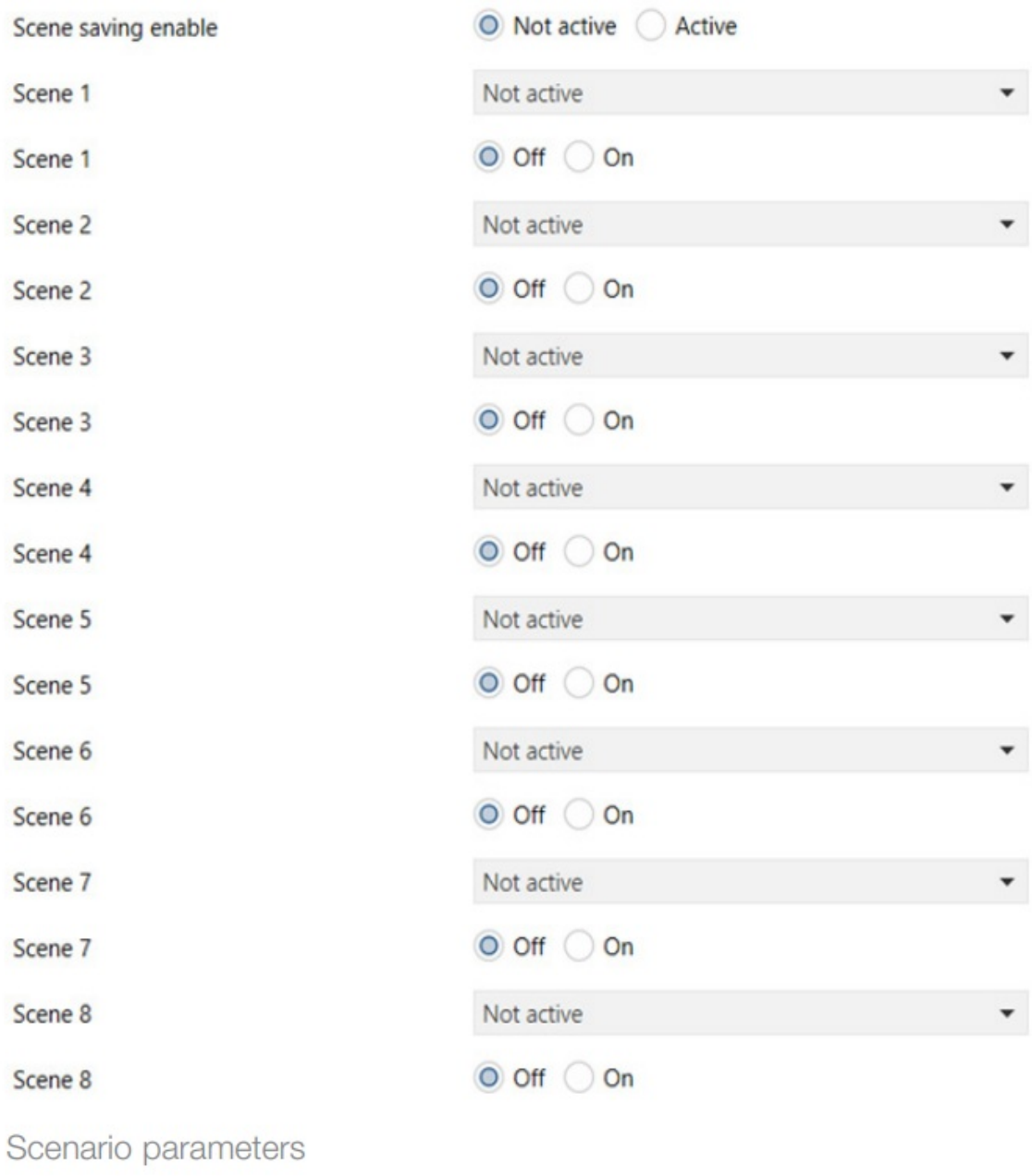
ETS text	Values available [Default value]	Comment
Store scenarios	0 = Off 1 = On	The “Store scenarios” func- tion is used to store the state linked to a scenario with a message from the Bus (scene learn).

	[0]	
Scenario 1	Off	Used to select the scenario index.
	1… 64	
	[Off]	
Scenario 1	0=Off	To define the relay output state when scen ario called up.
	1=On	
	[0]	
Scenario 2	Off	Used to select the scenario index.
	1… 64	
	[Off]	
Scenario 2	0=Off	To define the relay output state when the s cenario is called up.
	1=On	
	[0]	
Scenario 3	Off	Used to select the scenario index.
	1… 64	

	[Off]	
Scenario 3	0=Off	To define the relay output state when the s cenario is called up.
	1=On	
	[0]	
Scenario 4	Off	Used to select the scenario index.
	1… 64	
	[Off]	
Scenario 4	0=Off	To define the relay output state when the s cenario is called up.
	1=On	
	[0]	
Scenario 5	Off	Used to select the scenario index.
	1… 64	
	[Off]	
Scenario 5	0=Off	To define the relay output state when the s cenario is called up.
	1=On	

	[0]	
Scenario 6	Off	Used to select the scenario index.
	1… 64	
	[Off]	
Scenario 6	0=Off	To define the relay output state when the s cenario is called up.
	1=On	
	[0]	
Scenario 7	Off	Used to select the scenario index.
	1… 64	
	[Off]	
Scenario 7	0=Off	To define the relay output state when the s cenario is called up.
	1=On	
	[0]	
Scenario 8	Off	Used to select the scenario index.
	1… 64	

	[Off]	
Scenario 8	0=Off	To define the relay output state when the s cenario called up.
	1=On	
	[0]	

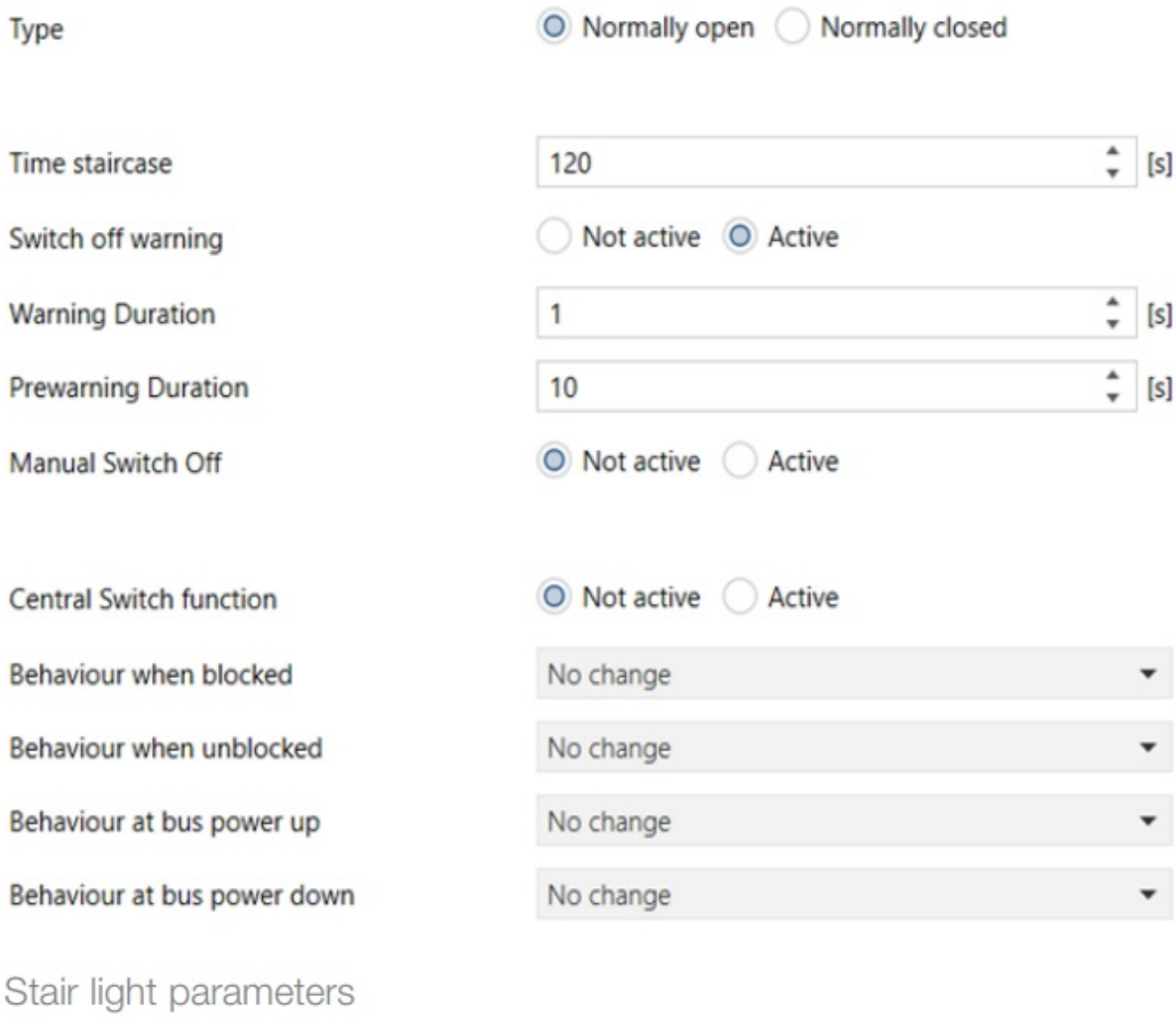


Output, timed stair light
The following parameters are available for each channel and are identical for all of them. If a channel is configured as stairs the The following parameters are visible:
Stair light parameters (one-position stable output management)

ETS text	Values available [Default value]	Comment
Type	0=normally closed 1=normally open [0]	To define if the relay output is normally op en 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 o n
Duration of warning [s]	0… 65535 [120]	If “Off warning” is on: having set a “warnin g time” and a “prewarning time”, when the relay is switched off after the “stair light tim e” set, this remains Off for a time equal to t he “warning time” and then comes on agai n for a time equal to the “prewarn- ing time ”
Duration	0… 65535 	Warning time (if “Off warning” is on). Thre e times will be added. Having set a “warnin g time” and a “prewarning time”, when the relay is switched off after the “stair light tim

of pre-warning [s]	[120]	e” set, this remains Off for a time equal to t he “warning time” and then comes on agai n for a time equal to the “prewarn- ing time ”
Manual off	0=off	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
	1=on	
	[0]	
Centralized switching modul e function	0=off	To control more than one output from the Bus at the same time
	1=on	
	[0]	
State at block state start	0=Off	If block on
	1=On	
	2=no change	
	[2]	
State at the end of the block state	0=Off	If block on
	1=On	
	2=no change	

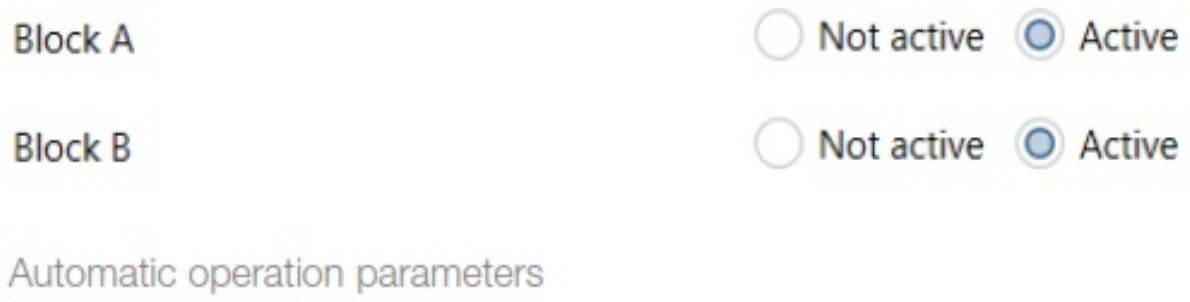
	[2]	
Behavior when powering up the Bus	0=Off	To define the relay output state at bus power on
	1=On	
	2=no change	
	[2]	
Behavior at Bus power off	0=Off	To define the relay output state at bus power off
	1=On	
	2=no change	
	[2]	



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).

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 acti vated
Block B	0=off 1=On [0]	For block B objects 1-4 are acti vated



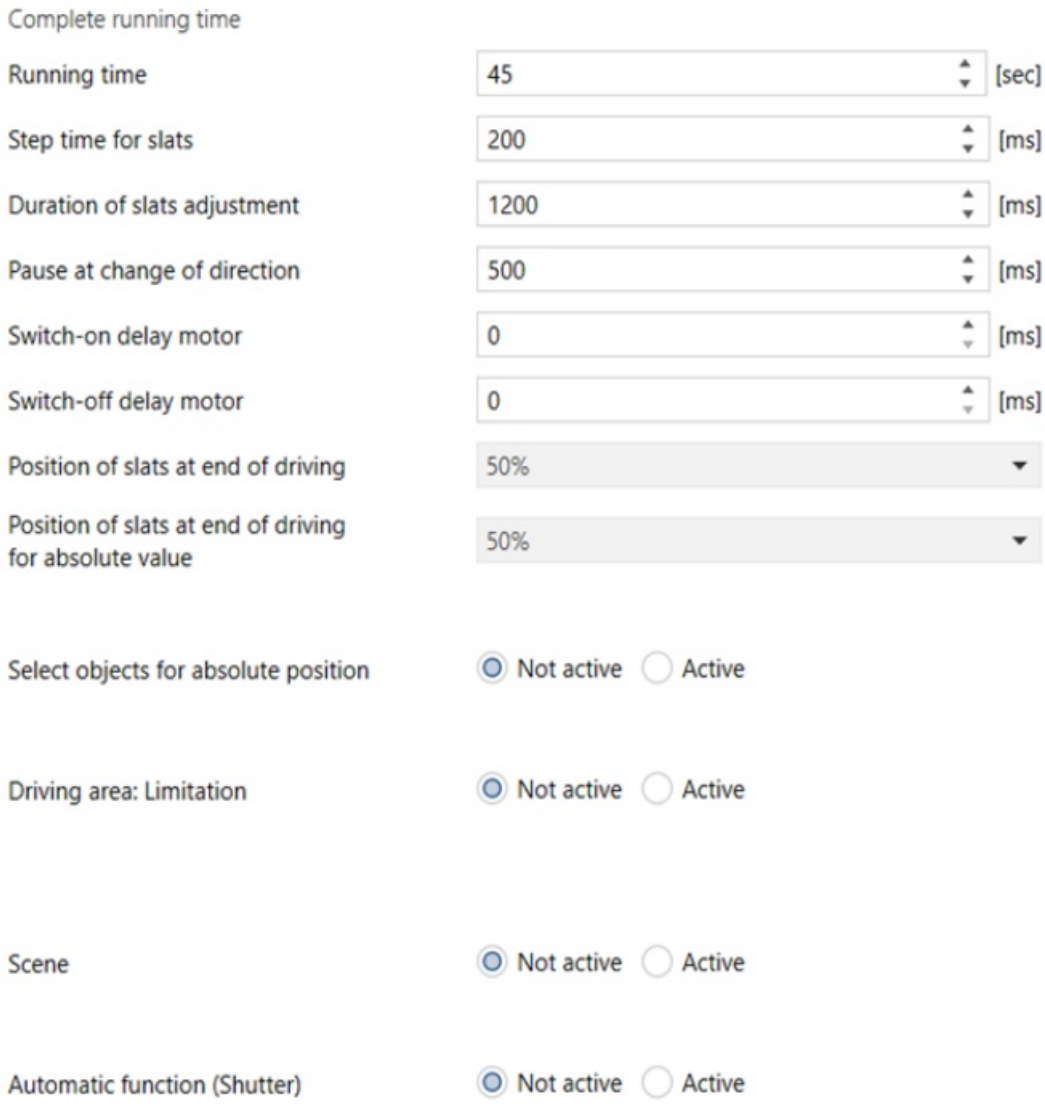
Parameters

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 i nterpret 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
	0-255	Sets the delay time between the

Motor start delay (ms)	[0]	command and the start of movement (useful for motor starting)
Motor power-off delay (ms)	0-255	Sets the delay time between the command and the end of the movement (limit stop)
	[0]	
Slat position at end of driving	0%-100%	Sets the slat position at the end from the reference travel 0-100% having set the limit stop (100% closed)
	[50]	
Slat position at end of driving by absolute value.	0%-100%	Sets the slat position at the end of the movement due to the “Position (absolute)” object
	[50]	
Object selection for absolute position	0=off	For feedback on the position on a supervisor, if on, 0%=all up and 100%=all down
	1=on	
	[0]	
Reaction after driving to reference	0=no reaction	Only if Position absolute
	1=Door to the previous position	
	[0]	
	0= off	

Driving area: Limitation	1=on	Only if the limitation on: sets the upper/lower thresholds of the Venetian blind travel to stop it before the limit stop
	[0]	
Lower limit	0%-100%	Only if limitation on (driving area) (100% = closed)
	[0%]	



Venetian blinds parameters

Continued

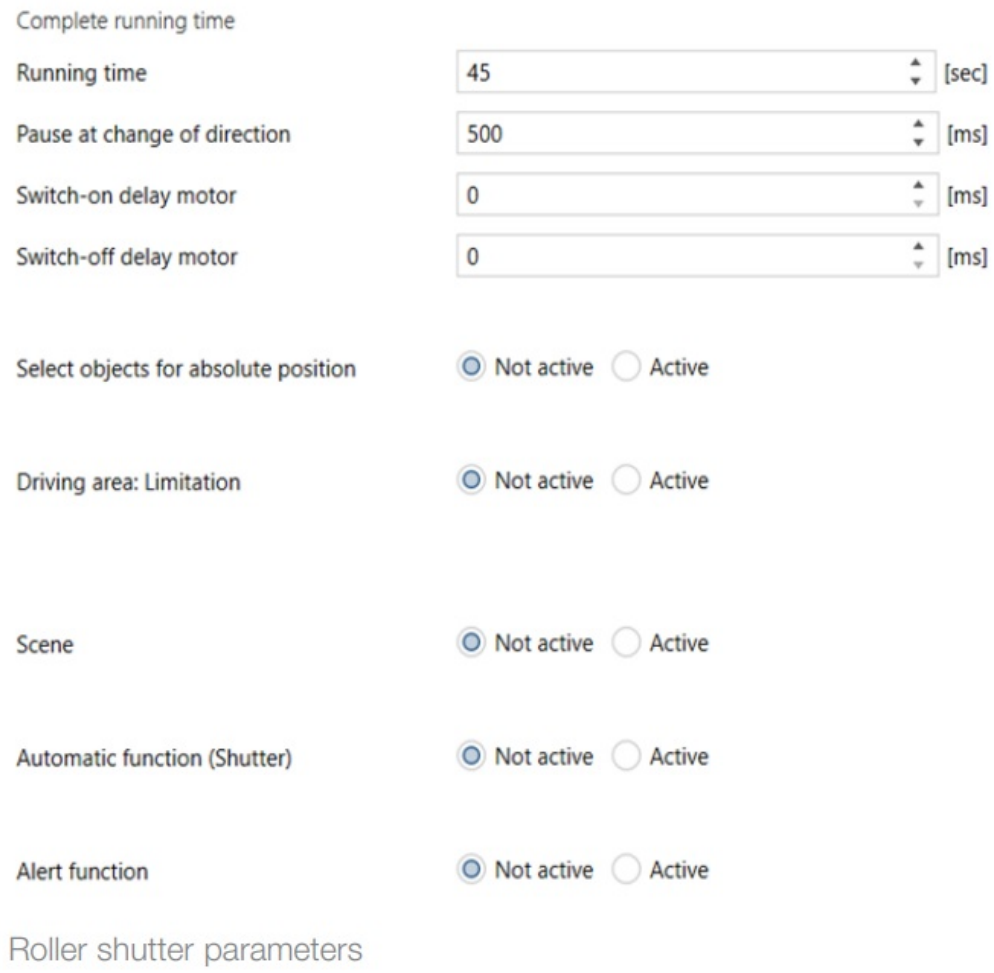
ETS text	Values available [Default value]	Comment
Upper limit	0%-100% [100%]	Only if limitation on (driving area) (100% = closed)
Scenario	0= off 1=on [0]	Enables the Venetian blind to be included i n scenarios
Automatic Operation	0= off 1=on [0]	Defines the possibility of having the Veneti an blind possibilities with 4 objects devote d 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-Ou t” parameters, to enable the ETS obtaining to be switched on/ off (e.g. a weather stati on) and obtain the automatic movement of the Venetian blinds in the event of rain, wi nd, frost, block-out

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 [45]	Movement time if not stopped
Pause at the change of direc tion (ms)	100÷1000 [500]	Sets the delay time between the command and the change of direction
	0÷255	Sets the delay time between the

Motor start delay	[0]	command and the start of movement (useful for motor starting)
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 driv- ing to reference	0 = No reaction	If “Select objects for absolute position” on
	1 = Door to the previous position	
	[0]	
Driving area: limi- tation	0 = Off	Only if the 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%]	
Scenario	0 = Off	Enables the roller shutter to be included in scenarios
	1 = On	
	[0]	



Continued

ETS text	Values available [Default value]	Comment
Automatic oper- ation	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 s tore the state linked to a scenario with a m essage 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 w hen 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 b linds only)
…		
Scenario 8		

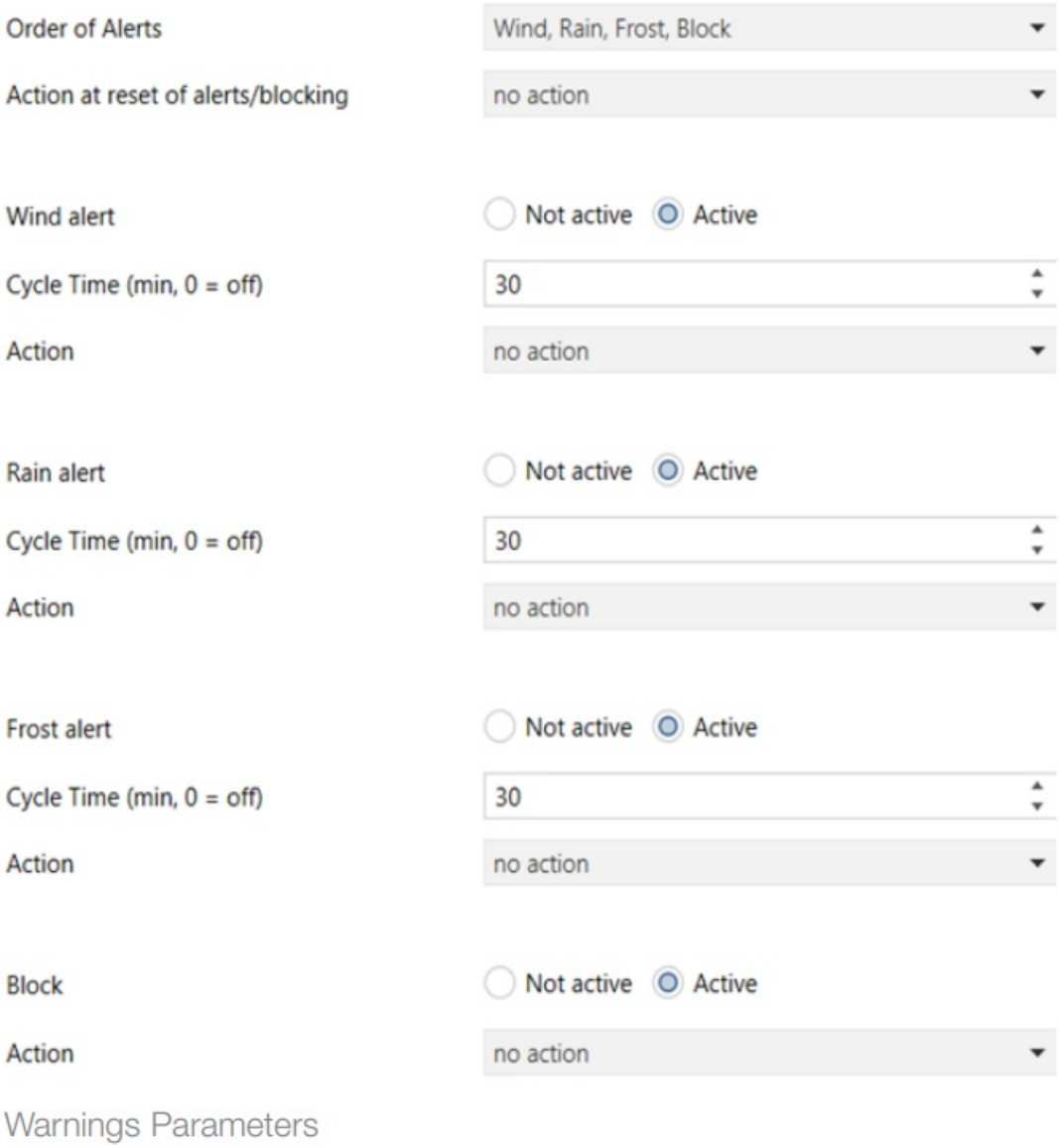
The Store scenarios function is used to store the state linked to a scenario with a message from the Bus (scene learn).

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
	0 = Wind, Rain, Frost, Block	

Warning order	1 = Wind, Rain, Block, Frost	To give a priority to the warnings
	2 = Wind, Block, Rain, Frost	
	3 = Block, Wind, Rain, Frost	
	[0]	
Action after warn- ings/block reset	0 = No action	What the output does (Vene- tian blinds/roll er shutter) when the warning or block end s
	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 ar e received)
	[30]	
	0 = No action	

Action	1 = Door to higher level	Defines what happens in the event of a “Wind” alarm
	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]	
“Frost” warning	0 = Off	
	1 = On	
	[0]	


Order of Alerts
Wind, Rain, Frost, Block
Action at reset of alerts/blocking
no action
Wind alert
Not active
Active
Cycle Time (min, 0 = off)
30
Action
no action
Rain alert
Not active
Active
Cycle Time (min, 0 = off)
30
Action
no action
Frost alert
Not active
Active
Cycle Time (min, 0 = off)
30
Action
no action
Block
Not active
Active
Action
no action
Warnings Parameters

Continued

ETS text	Values available	Comment
	[Default value]	
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 ar e received)
	[30]	
Action	0 = No action	Defines what happens in the event of a “Fr ost” 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]	

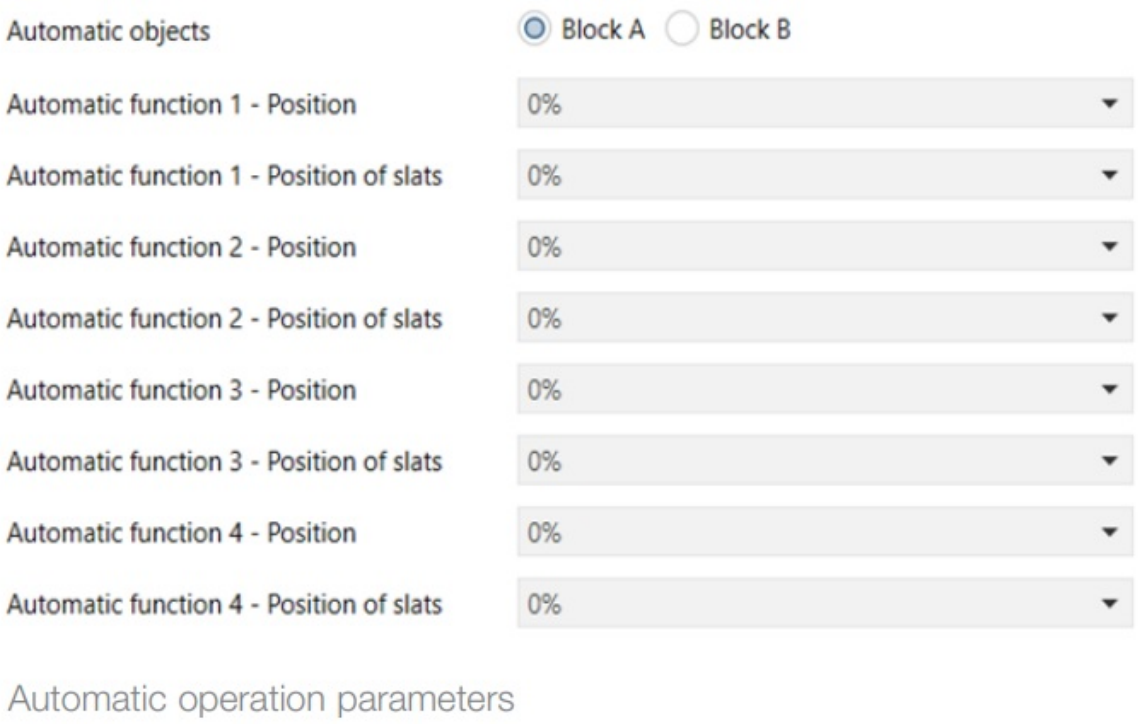
Automatic operation
In this point, the object block and required position are assigned, if the “Automatic operation” parameter is

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 associat- ed t o outputs 1/2 and 3/4.
Automatic opera- tion 1 (-4) – Position	0%-100% [0%]	For each of the 4 automatic operations, it i s possible to define the roller shutter positi on (100% = Closed)
(-4) – Blind position	0%-100% [0%]	For each of the 4 automatic operations, it i s 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.

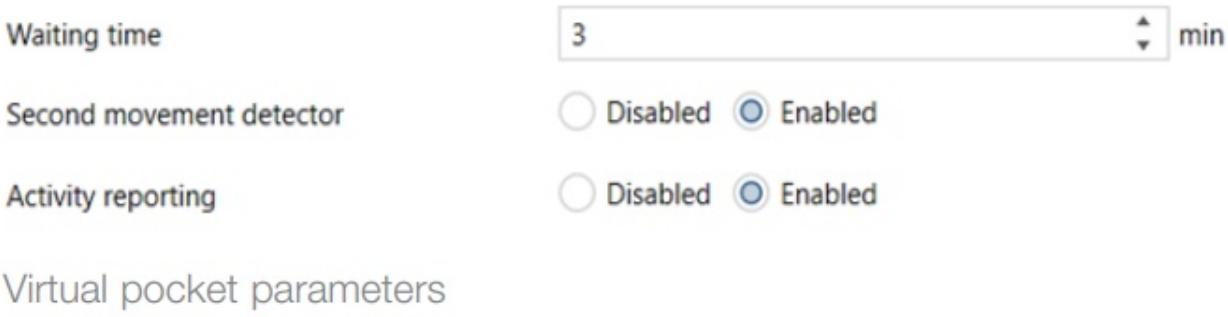


Automatic operation parameters

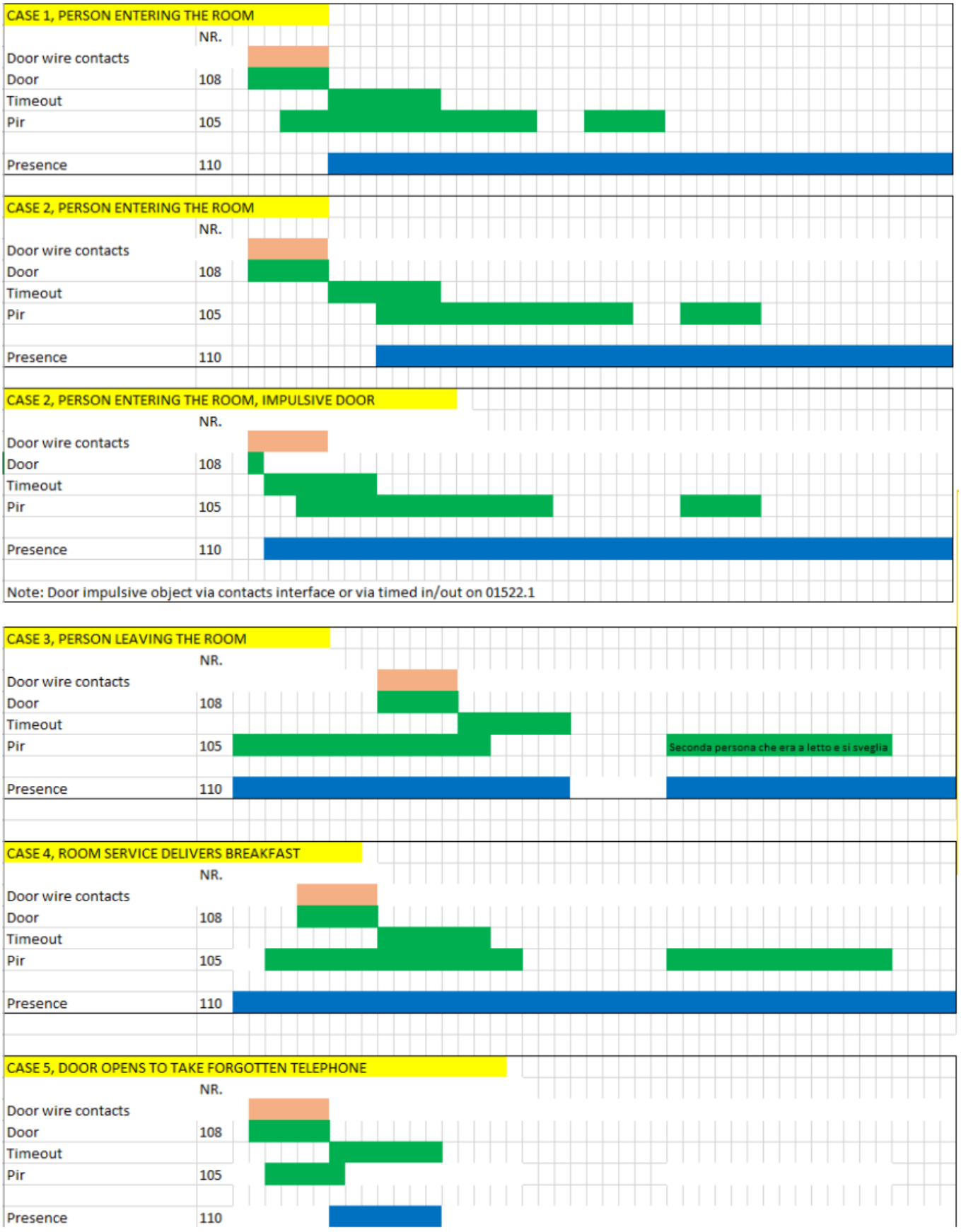
Virtual pocket

The virtual pocket function can be enabled by selecting “Enabled” in the “Output Configuration” page. This function is used to check if a room is occupied and signal it in the 1 bit object “Presence in the 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 signaling activity in the room are optional. The following parameters are available for this function

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



The following graphics illustrate some cases of using the “virtual pocket” function. In all cases, the door opening and closing is signaled (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 the room” signal is disabled and the room can be placed in the “not occupied” state.


CASE 1, PERSON ENTERING THE ROOM
NR.
Door wire contacts
Door
108
Timeout
Pir
105
Presence
110
CASE 2, PERSON ENTERING THE ROOM
NR.
Door wire contacts
Door
108
Timeout
Pir
105
Presence
110
CASE 2, PERSON ENTERING THE ROOM, IMPULSIVE DOOR
NR.
Door wire contacts
Door
108
Timeout
Pir
105
Presence
110
Note: Door impulsive object via contacts interface or via timed in/out on 01522.1
CASE 3, PERSON LEAVING THE ROOM
NR.
Door wire contacts
Door
108
Timeout
Pir
105
Seconda persona che era a letto e si sveglia
Presence
110
CASE 4, ROOM SERVICE DELIVERS BREAKFAST
NR.
Door wire contacts
Door
108
Timeout
Pir
105
Presence
110
CASE 5, DOOR OPENS TO TAKE FORGOTTEN TELEPHONE
NR.
Door wire contacts
Door
108
Timeout
Pir
105
Presence
110

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Documents / Resources

	VIMAR 01523.1 250V 16A 4-Output Actuator KNX [pdf] Installation Guide 01523.1, 250V 16A 4-Output Actuator KNX, 01523.1 250V 16A 4-Output Actuator KNX

References

- Home automation, electrical equipment, smart home - Vimar energia positiva - Vimar