## KNX controls

CONTENT ..... PAGE

- 1. Use .....  2
- 2. Range. ..... 2
■ 3. Technical features ..... 2
- 4. Overall dimensions (mm) ..... 2
- 5. Connection ..... 2
■ 6. Description of the mecanisms .....  2
- 7. Operation ..... 3
7.1 Actuation points ..... 3
7.1.1 Main functions ..... 3
7.1.2 Additional functions ..... 4
7.2 Operation of the LEDs .....  5
7.2.1 Setting the brightness ..... 5
7.2.2 Setting the colour and behaviour .....  5
■ 8. Standards and approvals ..... 5
- 9. Maintenance ..... 5
- 10. Communication objects description ..... 6
10.1 General configuration ..... 6
10.1.1 Leds configuration .....
10.1.2 Normal intensity General Parameters. .....  .7
10.1.3 Use additionnal Eco intensity .....  .7
10.1.4 Use standby ..... 7
10.1.5 Long push configuration. .....  8
10.1.6 Set maximum intensity after push during .....  8
10.1.7 Use Alarm ..... 8
10.2 Channels configuration (1,2,3,4,5,6) ..... 9
10.2.1 Use separately .....  9
10.2.2 Use Jointly ..... 26
10.3 Leds configuration ..... 32
10.3.1 Same for all/Configuration independently ..... 32
10.3.2 On value ..... 34
10.4 Leds color and behaviour updatingflowchart. ..... 37
10.5 Leds intensity update flowchart ..... 38
10.6 No configuration status and reset procedure ..... 38


## 1. USE

The KNX controls are wiring devices suitable to control lights, shutters or other kind of loads.
They are equipped with 6 completely independent and configurable channels able to perform a wide range of functions.
Main configurable functions:

- $1 / 2$ buttons switching/dimming
- $1 / 2$ buttons shutters and blinds management
- value sending (shutter position, dimming \%...)
- sequential value sending
- multiple commands
- conditional commands
- $1 / 8$ bit scenario saving and recall

Each device is also equipped with RGB LEDs (2 or 3 depending on the Cat. No. ) fully configurable in term of colors and blinking mode and can switch operating profiles according to defined events or conditions

## 2. RANGE

|  | Description | Cat. |
| :---: | :---: | :---: |
|  | KNX control <br> $2 M$ | K4651M2KNX |
|  | KNX control <br> $3 M$ | K4651M3KNX |

## 3. TECHNICAL FEATURES

- Supply voltage: $29 \mathrm{~V}=$
- KNX connector: red/black
- Automatic clamp

- KNX BUS absorption: 9.5 mA
- Usage temperature: $0^{\circ} \mathrm{C} /+45^{\circ} \mathrm{C}$, negative temperatures are not managed.
- Storage temperature: $-25^{\circ} \mathrm{C} /+30^{\circ} \mathrm{C}$
- IP40: assembled product
- IP20: without rocker plate
- IK02

Compliant with installation and manufacturing standards, see E-catalogue

## 4. OVERALL DIMENSIONS (mm)

## K4651M2KNX




## 5. CONNECTION



## 6. DESCRIPTION OF THE MECANISMS



Prog \& Reset

## 7. OPERATION

■ 7.1 Actuation points
Each actuation point can be configured independently or in pairs, for a short and a long press (time can be configured in the ETS software), for on/off control, dimming, roller blinds, scenario, lock, incremented scenarios, send value, double action send, etc.:
Non-exhaustive list of the possible functions.

### 7.1.1 Main functions



## 7. OPERATION (continued)

■ 7.1 Actuation points (continued)
7.1.1 Main functions (continued)

|  | Possible action |  |  |
| :---: | :---: | :---: | :---: |
| Dim (cont.) | - 2 actuation points (pair) <br> ON/Off: short press at top and bottom <br> Dim +: press at top and hold <br> Dim -: press at bottom and hold Stop dimming: release |  | Short press |
|  |  |  | Press and hold down |
|  |  |  | Release |
| Scenario | - Short press: send a scenario number that is in the actuator configuration <br> - Long press (10 seconds): save scenario. <br> All actuators with this scenario number will save their status at this moment | Send scenario | Short press |
|  | $\triangle$ The length of this press cannot be configured in the ETS software | Save scenario | Long press (10 s) |

7.1.2 Additional functions


## 7. OPERATION (continued)

## - 7.1 Actuation points (continued)

### 7.1.2 Additional functions (continued)

|  | Possible action |  |  |
| :---: | :---: | :---: | :---: |
| Send incremented commands (by scrolling) | - Successive short presses: send incremented commands. <br> The chosen commands are sent one after the other (incrementation or decrementation between a min. and max. value, between 0 and 255) <br> Example: 1st press: comfort (command 1), 2nd press: standby (command 2), 3rd press: eco (command 3), 4th press: comfort (command 1) | Send commands <br> Press short |  |
| Double action send (send 2 commands) | This function is used to associate products that do not have the scenario function with a scenario | Send double action |  |
| Conditional send Mode 1/Mode 2 | When pressed, sends a command or a second different command, according to a condition. <br> The control can manage different circuits according to an event. <br> Example: in a meeting room, one press activates the switch-on of the 4 luminaires (mode 1). <br> When a mobile partition is used in this meeting room, one press activates the 2 luminaires on the corridor side of the room. | Send conditional Mode 1 or Mode 2 | Meeting room Mode 1 <br> Mode 2 <br> With mobile partition |

## - 7.2 Operation of the LEDs

Each control has a number of configurable RGB LEDs (2 or 3 depending on the Cat. No.) which indicate, for each press, the status of the system using the colours, flashing and brightness of the LEDs.
When the control has not yet been programmed, all the LEDs change colour quickly.

- Choice of 12 colours: green, blue, white, orange, gold, yellow,
turquoise, cyan, light blue, purple, magenta, crimson
- Choice of LED behaviour: on continuously or various types of flashing

- Choice of the brightness of the LEDs (0 to 100\%)
- Default modes:

ON = steady green
Off = steady blue
Alarm = blinking red (cannot be modified)
Control deactivated = steady orange

- Physical address programming mode: steady red LEDs


### 7.2.1 Setting the brightness

- Normal brightness: adjustable value
- Eco brightness: adjustable value
- Standby brightness: value cannot be adjusted (off)

The LED's lights up at maximum brightness level for 30 s after pressing any push button.
The brightness setting will be the same for all the LEDs on the control

### 7.2.2 Setting the colour and behaviour

- Actuator status feedback: ON or OFF
- System status feedback: contextual information indicated via the BUS Example: over-consumption, broken lamp, too much wind for roller blinds.
It is also possible to use the control in pilot light mode.


## 8. STANDARDS AND APPROVALS

- Complies with standard IEC 60 669.2.1
- Marking: KNX , CE


## 9. MAINTENANCE

Clean the surface with a cloth.
Do not use acetone, tar-removing cleaning agents or trichloroethylene.

## Caution:

Always test before using other special cleaning products.

## 10. COMMUNICATION OBJECTS DESCRIPTION

## -10.1 General configuration

KNX controls can be configured via ETS software (versions ETS 3, 4 and 5).

## - General Parameters

This screen contains the main command parameters, common to all the channels:

- LED settings
- Standby mode settings
- Long push settings
- Disable object settings
- Alarm settings

| Leds configuration | Same for all |
| :---: | :---: |
| Normal intensity | 70\% |
| Use additional Eco intensity | O No Yes |
| Use standby | ( No Yes |
| Long push action min. | 0.5 second |
| Set maximum intensity after push, during | Not Used |
| Use alarm | ( No Yes |

## - Communication Objects

Activation mode 1, 2.
Mode 1 : default operation
Mode 2 : conditional operation

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 71 | Mode | Active mode 1 | 1.010 DP_Start (1 bit) | CW |
| Mode 1 activation telegrams are sent via the group address linked with this object |  |  |  |  |
| 72 | Mode | Active mode 2 | 1.010 DP_Start (1 bit ) | CW |
| Mode 2 activation telegrams are sent via the group address linked with this object |  |  |  |  |
| 73 | Mode | Mode 1 (False) / 2 (True) | 1.002 DP_Bool (1 bit ) | CW |

False : Mode 1 activation telegrams are sent via the group address linked with this object
True : Mode 2 activation telegrams are sent via the group address linked with this object
10.1.1 Leds configuration
Leds configuration Same for all

| Leds configuration | Same for all <br> Config Independently <br> On value |  |  |
| :--- | :---: | :---: | :---: |
| This parameter determines the type of configuration for the LEDs |  |  |  |

## 10 COMMUNICATION OBJECTS DESCRIPTION (continued)

■ 10.1 General configuration (continued)
10.1.2 Normal intensity General Parameters
(Mode 1 parameters)

|  | Normal intensity | 70\% |
| :---: | :---: | :---: |
| Parameters | Setting |  |
| Normal intensity | 0 \% $5 \%$ $20 \%$ $50 \%$ $70 \%$ $100 \%$ |  |
| This parameter determines the level in Normal intensity. (This value is felt not measured) |  |  |
| 10.1.3 Use additionnal Eco intensity Controlled by group address. |  |  |
|  | Use additional Eco intensity | $\bigcirc$ No Yes |

No
Eco is not usable, no accessible communication objects.

| Use additional Eco intensity | No O Yes |
| :--- | :--- |

Yes (makes available mode eco object)

| No. | Object name | Function | Size | Flags |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 66 | Leds Eco/normal | Eco (1)/normal (0) | 1.002 DP_Bool (1 bit) | CW |  |
| False : Normal mode activation telegrams are sent via the group address linked with this object |  |  |  |  |  |
| True : Eco mode activation telegrams are sent via the group address linked with this object |  |  |  |  |  |
| 68 | Leds Eco | Eco intensity | 1.010 DP_Start (1 bit) | CW |  |
| Eco mode activation telegrams are sent via the group address linked with this object |  |  |  |  |  |
| 67 | Leds Normal | Normal intensity | 1.010 DP_Start (1 bit ) | CW |  |
|  |  |  |  |  |  |

$\square$

| Parameters | Setting |
| :--- | :--- |
| Eco intensity | $0 \%$ |
|  | $5 \%$ |
|  | $20 \%$ |
|  | $50 \%$ |
|  | $70 \%$ |
|  | $100 \%$ |

10.1.4 Use standby

Controlled by communication object.

| Use standby $\quad$ O No $\bigcirc$ Yes |
| :--- | :--- |

No
Standby is not usable, no accessible communication objects.


Yes (makes available the standby object)


## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

## -10.1 General configuration (continued)

10.1.4 Use standby (continued)

When standby is active the leds intensity is set to 0\% (not adjustable)

| Invert standby logic O No Yes |
| :--- | :--- |


| Invert standby logic | No <br> Yes |
| :---: | :---: |

This parameter determines the type of logic for active standby

## Wake-up

With the "Wake-up" function enabled, when the product is on standby, the first press on any button will light up the LEDs. However, the action will be sent only after the second press.

| Use wake-up function | No $O$ Yes |
| :--- | :--- |

10.1.5 Long push configuration

This parameter determines the minimum time for detecting a long push action.

| Long push action min. | 0.5 second <br> 1 second <br> 2 seconds <br> 3 seconds <br> 4 seconds <br> 5 seconds <br> 10 seconds | Long push action min. |  |
| :--- | :--- | :--- | :--- |

### 10.1.6 Set maximum intensity after push during

If selected, after a push, the intensity of the led is raised to $100 \%$ during the set time. Return to the initial value at the end of time.


## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

■ 10.1 General configuration (continued)
10.1.7 Use Alarm(continued)

| Parameters | Setting |
| :--- | :--- |
| Invert alarm logic | No <br> Yes |
| This parameter determines the type of logic to active/deactive an alarm |  |
| Disable on Alarm | Yes for all <br>  |
| No for all <br> Configure Independatly |  |
| The parameter determines if the channels are disabled on alarm. If is it chosen "Configure <br> independently" it is possible to choose one by one the channel behaviour. |  |

## - 10.2 Channels configuration (1,2,3,4,5,6)

This screen allows to chose how to manage the channels and to configure their settings

| Usage type | O use separatly $\bigcirc$ use jointly |
| :--- | :--- |
| ----- Channel 1 ----- | Not used |
| Channel 1 function | O No Yes |
| Add enable object | Not used |
| Channel 2 function | O No $O$ Yes |
| Add enable object |  |

### 10.2.1 Use separately

## Channel X function

Not used
Channel is not usable, no accessible communication objects
10.2.1.1 Switching

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $1(10,19,28)$ | Channel $1(2,3,4)$ | Switching | 1.001 DP_Switch (1 bit) | CWT |
| $1(10,19,28,37,46)$ | Channel $1(2,3,4,5,6)$ |  | CW |  |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |
| $2(11,20,29)$ | Channel 1 $(2,3,4)$ | Switching Status | 1.01 DP_Switch (1 bit) |  |

[^0]
## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.1 Switching (continued)

| ----- Channel 1 ------ |  |  |
| :--- | :--- | :--- |
| Channel 1 function | Switching |  |
| SubFunction | Push / Release | O Short / Long |
| Short push reaction | Toggle |  |
| Long push reaction | No reaction | - |

## SubFunction

Short/long

| Parameters | Setting |
| :--- | :--- |
| Short push reaction | No reaction |
|  | On |
|  | Off |
| Toggle |  |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": A short push does not change the object value and also does not send a telegram.
"On": After short push, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After short push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After short push, the switching value stored in the communication object is inverted and the new value is sent
Long push reaction

| No reaction |
| :--- |
| On |
| Off |
| Toggle |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": A long push does not change the object value and also does not send a telegram.
"On": After long push, the switching value "ON" (binary value, " 1 ") is transferred into the communication object and sent.
"Off": After long push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After long push, the switching value stored in the communication object is inverted and the new value is sent

Push/Release

| Parameters | Setting |
| :--- | :--- |
| Push reaction | No reaction <br> On <br> Off <br> Toggle |
| Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after pressing the |  |
| push button related to the channel. |  |
| "No reaction": Pushing a button action does not change the object value and also does not send a telegram. |  |
| "On": Pressing a push-button, the switching value "ON" (binary value,"1") is transferred into the communication object and sent. |  |
| "Off": Pressing a push-button, the switching value "OFF" (binary value,") is transferred into the communication object and sent. |  |
| "Toggle": Pressing a push-button, the switching value stored in the communication object is inverted and the new value is sent |  |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after releasing the push button related to the channel.
"No reaction": A release of the push-button does not change the object value and also does not send a telegram.
"On": After releasing a push-button, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After releasing a push-button, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": Releasing a push-button, the switching value stored in the communication object is inverted and the new value is sent

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.2 Shutter 1-input

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \hline(10,19,28) \\ 1(10,19,28,37,46) \\ \hline \end{gathered}$ | Channel $1(2,3,4)$ <br> Channel $1(2,3,4,5,6)$ | Shutter Up/Down | 1.008 DP_UpDown (1 bit) | CWT |
| The movement commands Up/Down are sent via the address linked with this object in order to raise/lower the solar protection. |  |  |  |  |
| $\begin{gathered} 7(16,25,34) \\ 7(16,25,34,43,52) \end{gathered}$ | Channel $1(2,3,4)$ Channel 1 ( $2,3,4,5,6$ ) | Shutter Stop - slats | 1.009 DP_OpenClose (1 bit) | CWT |
| The command "STOP" or "Slats OPEN/CLOSE" are sent via the group address linked with this object. |  |  |  |  |
| $\begin{gathered} 6(15,24,33) \\ 6(15,24,33,42,51) \end{gathered}$ | Channel 1 ( $2,3,4$ ) Channel 1 (2,3,4,5,6) | Shutter Status | 5.001 DP_Scaling (1 Byte) | CW |

The shutter status telegrams are received from the shutter actuator via the group address linked with this object.

| ----- Channel 1 ------ |  |  |
| :--- | :--- | :--- |
| Channel 1 function | Shutter 1-input |  |
| Short push reaction | Stop | - |
| Long push reaction | Cyclical Up/Down | - |
| Long push release | O No reaction $\bigcirc$ Stop |  |


| Parameters |  |  |  |  | Setting |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Short push reaction | No reaction | Stop |  |  |  |
|  | Cyclical Up / Down + stop | Open slats |  |  |  |
|  | Up + stop | Close slats |  |  |  |
|  | Down + stop | Up |  |  |  |
|  | Cyclical Up / Down | Down |  |  |  |

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": a short push does not change the object value and also does not send a telegram.
Cyclical Up / Down + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Down, Stop,
Up, Stop, Down, Stop,etc.
Up + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Up, Stop,,etc.
Down + stop : each short push transfers the following sequence command values into the communication object: Down, Stop, Down, Stop, etc.
Cyclical Up / Down: each short push transfers the following sequence command values into the communication object : Up, Down, Up,
Down,,etc.
Stop : a short push transfers into the communication object the stop command value (" 1 " or " 0 ")
Open slats: a short push transfers into the communication object the stop (open slats) command value (" 0 ")
Close slats: a short push transfers into the communication object the stop (close slats) command value (" 1 ")
Up: a short push transfers into the communication object the Up command (value " 0 ")
Down: a short push transfers into the communication object the Down command (value " 1 ")
Long push reaction
No reaction
Up
Down
Cyclical Up/Down
Stop
Cyclical Open/Close slats
Open slats
Close slats

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": a long push does not change the object value and also does not send a telegram.
Up: a long push send the Up command (value " 0 ")
Down: a long push sends the Down command (value"1")
Cyclical Up / Down: each long push sends the following sequence commands: Up, Down, Up, Down,,etc.
Stop : a long push sends the stop command (value " 1 " or " 0 ")
Cyclical Open /Close slats : each long push sends the following sequence commands : Open slats, Close slats, Open slats, Close slats.

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.2 Shutter 1-input (continued)

| Parameters | Setting |  |
| :--- | :--- | :---: |
| Open slats: a long push action sends the (open slats) command (value " 0 ") <br> Close slats: a long push action sends the (close slats) command (value" 1 ") |  |  |
| Long push release | No reaction <br> Stop |  |
| Here an adjustment is made to define which value is written into the storage cell of the communication object and sent when releasing the push- |  |  |
| button releated to the input after a long push. |  |  |
| "No reaction": a release does not change the object value and also does not lead to the sending of a telegram. |  |  |
| Stop : the stop command (value " 1 " or " 0 ") is transferred into the communication object and sent |  |  |

10.2.1.3 8-bits scene control

This function allows to recall/save up to 64 scene.
A short push recalls the scene and a special long push (10s) allows to save a scene; for the defined scene number all the involved actuators statuses are saved.

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $4(13,22,31)$ | Channel $1(2,3,4)$ | 8 -bits scene | 17.001 DP_SceneNumber | (1 Byte) |

The telegrams to recall the scene with the configured number (1..64) are sent via the group address link with this object.

| $-\cdots--$ Channel 1 ----- |  |
| :--- | :--- |
| Channel 1 function | 8-bits scene control |
| Scene num. on short push | 1 |


| Parameters | Setting |
| :--- | :--- |
| Scene num. on short push | $0 . .64$ |
| This parameters determines which scene (1..64) has to be recalled on rising edge. |  |
| If value " 0 " is set, no scene is going to be recalled |  |

10.2.1.4 Priority

This function allows to send lock/unlock commands.

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $4(13,22,31)$ | Channel 1 $(2,3,4)$ | Override 2bits | 2.001 DP_Switch_Control | CT |
| $4(13,22,31,40,49)$ | Channel 1 $(2,3,4,5,6)$ | $(2$ bits $)$ |  |  |

The telegrams with the override commands are sent via the address linked with this object

| ----- Channel 1 ----- |  |
| :--- | :--- |
| Channel 1 function | Priority |
| Short push reaction | Priority High / On |
| Long push reaction | Priority High / Off |

10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration ( $1,2,3,4,5,6$ ) (continued)
10.2.1 Use separately (continued)
10.2.1.4 Priority (continued)

| Parameters | Setting |
| :--- | :--- |
| Short push reaction | Priority High / On (lock On) <br> Priority High / Off (lock Off) <br> Priority Low / On (Unlock On) <br> Priority Low / Off (Unlock Off) |
| Here it is chosen the desired value to be sent upon a short press of the push-button related to the channel. <br> Long push reactionPriority High / On <br> Priority High / Off <br> Priority Low / On <br> Priority Low / Off |  |

Here it is chosen the desired value to be sent upon a long press of the push-button related to the channel.

| Value | Behaviour |
| :---: | :---: |
| 00b | Low Priority, Off-State |
| 01b | Low Priority, On-State |
| 10b | High Priority, Off-State |
| 11b | High Priority, On-State |

10.2.1.5 Counting

This function allows to send incremental values at each pressure

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $4(13,22,31)$ | Channel 1 $(2,3,4)$ | Counting | 17.001 DP_SceneNumber | (1 Byte) |

The telegrams to recall the scene with the configured number (1..64) are sent via the group address link with this object.

| $2(11,20,29)$ | Channel $1(2,3,4)$ | Reset Counter | 1.015 DP_Reset <br> $(1 \mathrm{bit})$ | CW |
| :---: | :---: | :---: | :---: | :---: |
| $2(11,20,29,38,47)$ | Channel $1(2,3,4,5,6)$ |  | $\left(\begin{array}{l}\text { CW }\end{array}\right.$ |  |

If a telegram linked with this object is received, then the counter value is reset to the minimum value set by the "minimum value" parameter.

| ----- Channel 1 ----- |  |  |
| :---: | :---: | :---: |
| Channel 1 function | Counting | , |
| Minimum value | 0 | $\stackrel{\square}{*}$ |
| Maximum value | 255 | $\stackrel{\square}{*}$ |
| Increment / Decrement | ( Increment |  |
| Add "Reset counter" Object | ( No Yes |  |


| Parameters | Setting |
| :--- | :--- |
| Minimum value | $0 . .255,0$ |
| An adjustment is made via this parameter to define the minimum counter value. |  |
| In case of "decrement" value of "Increment decrement" parameter, the next counter value is set to the maximum. |  |
| Maximum value | $0 . .255,255$ |
| An adjustment is made via this parameter to define the maximum counter value |  |
| In case of "increment" value of "Increment decrement" parameter, the next counter value is set to the minimum. |  |
| Increment / Decrement | Increment <br> Decrement |
| Here an adjustment is made as to whether the counter value is to be increased by value 1 or decreased by the value 1 after each rising edge. |  |
| Add "Reset counter" Object | Yes / No |
| This parameter determines if the "Reset Counter" object is enabled or not. |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

■ 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.6 Dimming

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 1(10,19,28) \\ 6 \text { pushes } 1(10,19,28,37,46) \end{gathered}$ | Channel $1(2,3,4)$ <br> Channel 1 (2,3,4,5,6) | Switching | 1.01 DP_Switch (1bit) | CWT |
| Switching telegrams are sent via the group address linked with this object. |  |  |  |  |
| $\begin{gathered} 5(14,23,32) \\ 5(14,23,32,49,50) \end{gathered}$ | Channel $1(2,3,4)$ <br> Channel 1 (2,3,4,5,6) | Dimming | 3.007 DP_Control_Dimming $(4 \mathrm{bit})$ | CT |
| Dimming telegrams are sent via the group address linked with this object. |  |  |  |  |
| $\begin{gathered} 6(15,24,33) \\ 6(15,24,33,42,51) \end{gathered}$ | Channel 1 ( $2,3,4$ ) <br> Channel 1 (2,3,4,5,6) | Value Status | 5.001 DP_Scaling (1 Byte) | CW |
| Dimming status telegrams are received via the group address linked with this object. |  |  |  |  |


| ----- Channel 1 ------ |  |
| :--- | :--- |
| Channel 1 function | Dimming |
| Switching value on short push | Toggle |
| Dimming value on long push | Dim $+/-$ |
| Dimming value on release push | O Stop |


| Parameters | Setting |
| :--- | :--- |
| Switching value on short push | No reaction |
|  | On |
|  | Off |
| Toggle |  |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": A short push button action does not change the object value and also does not send a telegram.
"On": After a short push, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After a short push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent.
Dimming value on long push
Dim +/-
Dim +
Dim -
No reaction
Here an adjustment is made to define which dimming value is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": A long push button action does not change the object value and also does send a telegram.
"Dim+/-": After a long push, the dimming value stored in the communication object is inverted and the new value is sent
"Dim +" After a long push, the dimming value "Increase 100\%" is transferred into the communication object and sent.
"Dim -" : After a long push, the dimming value "Decrease $100 \%$ " is transferred into the communication object and sent.
Dimming value on release push
No reaction
Stop
Here an adjustment is made to define which dimming value is written into the storage cell of the communication object and sent after a long push release of the push button related to the Channel.
"No reaction": a release after a long push does not change the object value and also does not send a telegram.
"Stop": When the push button is released after a long push, the dimming value "Stop" is transferred into the communication object and sent.

### 10.2.1.7 $1 \times 1$ unsigned byte

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 4(13,22,31) \\ 4(13,22,31,40,49) \end{gathered}$ | Channel $1(2,3,4)$ Channel 1 ( $2,3,4,5,6$ ) | Unsigned Value | 5.010 DP_Value_1_Ucount <br> (1 Byte) | CT |
| The telegrams with the unsigned value are sent via the group address linked with this object |  |  |  |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.7 1x1 unsigned byte (continued)

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 4(13,22,31) \\ 4(13,22,31,40,49) \end{gathered}$ | Channel $1(2,3,4)$ Channel 1 (2,3,4,5,6) | Unsigned Value | 5.010 DP_Value_1_Ucount (1 Byte) | CT |

```
----- Channel 1 ---.-
```

Channel 1 function
Byte value on short push (0-255)


| Parameters |  | Setting |
| :--- | :--- | :--- |
| Byte value on short push (0-255) | $0 . .255,1$ |  |

Here an adjustment is made to define which unsigned 8 bits value is written into the storage cell of the communication object and sent after a rising edge in the signal status at the channel (input). The rising edge corresponds to a change in the signal status at the Channel from logical " 0 " to " 1 ".
10.2.1.8 $2 \times 1$ unsigned byte

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $4(13,22,31)$ | Channel 1 $(2,3,4)$ | Unsigned Value | 5.010 DP_Value_1_Ucount | (1 Byte) |

The telegrams with the unsigned value are sent via the group address linked with this object


| Parameters |  | Setting |
| :--- | :--- | :--- |
| Byte value on short push (0-255) | $0 . .255,1$ |  |

Here an adjustment is made to define which unsigned-8 bits value is written into the storage cell of the communication object and sent after short pressing of the push button attached to the channel.

| Byte value on long push (0-255) | $0 . .255,0$ |
| :--- | :--- |

Here an adjustment is made to define which unsigned-8 value is written into the storage cell of the communication object and sent after long pressing of the push button attached to the input.

### 10.2.1.9 Multi action

This function allows to send two telegrams with a single pressure (Channel $X$ and Channel $X$ Action 2).
Switching:

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \hline 1(10,19,28) \\ 1(10,19,28,37,46) \\ \hline \end{gathered}$ | Channel 1 ( $2,3,4$ ) Action 1 Channel 1 (2,3,4,5,6) Action 1 | Switching | 1.01 DP_Switch (1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |
| $\begin{gathered} 2(11,20,29) \\ 2(11,20,29,38,47) \\ \hline \end{gathered}$ | Channel 1 ( $2,3,4$ ) Action 1 Channel 1 ( $2,3,4,5,6$ ) Action 1 | Switching Status | 1.01 DP_Switch (1 bit) | CW |
| Switching status are received via the group address linked with this object. |  |  |  |  |
| $\begin{gathered} 8(17,26,35) \\ 8(17,26,35,44,53) \end{gathered}$ | Channel 1 ( $2,3,4$ ) Action 2 Channel 1 (2,3,4,5,6) Action 2 | Switching | 1.01 DP_Switch (1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.9 Multi action (continued)

| ----- Channel 1 ----- |  |  |
| :--- | :--- | ---: |
| Channel 1 function | Multi Action | - |
| Channel 1 Action 1 Type | Switching | - |
| Short push reaction | On | - |
| Long push reaction | No reaction | - |
| Channel 1 Action 2 Type | Switching | - |
| Short push reaction | Off | - |
| Long push reaction | No reaction | - |


| Parameters | Setting |
| :--- | :--- |
| Short push reaction | No reaction |
|  | On |
|  | Off |
| Toggle |  |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": A short push does not change the object value and also does not send a telegram.
"On": After a short push, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After a short push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent

| Long push reaction | No reaction |
| :--- | :--- |
|  | On |
|  | Off |
|  | Toggle |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after a long pressing the push button related to the channel.
"No reaction": A long push does not change the object value and also does not send a telegram.
"On": After a long push, the switching value "ON" (binary value, " 1 ") is transferred into the communication object and sent.
"Off": After a long push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a long push, the switching value stored in the communication object is inverted and the new value is sent

Shutter:

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 1(10,19,28) \\ 1(10,19,28,37,46) \\ \hline \end{gathered}$ | Channel 1 (2,3,4) Action 1 Channel 1 ( $2,3,4,5,6$ ) Action 1 | Shutter Up/Down | 1.008 DP_UpDown (1 bit) | CWT |
| The movement commands Up/Down are sent via the address linked with this object in order to raise/lower the solar protection. |  |  |  |  |
| $\begin{gathered} 7(16,25,34) \\ 7(16,25,34,43,52) \end{gathered}$ | Channel $1(2,3,4)$ Action 1 Channel 1 ( $2,3,4,5,6$ ) Action 1 | Shutter Stop - slats | 1.009 DP_OpenClose (1 bit) | CWT |
| The command "STOP" or "Slats OPEN/CLOSE" are sent via the group address linked with this object. |  |  |  |  |
| $\begin{gathered} 6(15,24,33) \\ 6(15,24,33,42,51) \\ \hline \end{gathered}$ | Channel $1(2,3,4)$ Action 1 Channel 1 ( $2,3,4,5,6$ ) Action 1 | Shutter Status | 5.001 DP_Scaling (1 Byte) | CW |
| The shutter status telegrams are received from the shutter actuator via the group address linked with this object. |  |  |  |  |
| $\begin{gathered} \hline 8(17,26,35) \\ 8(17,26,35,44,53) \end{gathered}$ | Channel 1 ( $2,3,4$ ) Action 2 Channel 1 (2,3,4,5,6) Action 2 | Shutter Up/Down | 1.008 DP_UpDown (1 bit) | CWT |
| The movement commands Up/Down are sent via the address linked with this object in order to raise/lower the solar protection. |  |  |  |  |
| $\begin{gathered} 9(18,27,36) \\ 9(18,27,36,45,54) \end{gathered}$ | Channel 1 ( $2,3,4$ ) Action2 Channel 1 (2,3,4,5,6) Action 2 | Shutter Stop - slats | 1.009 DP_OpenClose (1 bit) | CWT |

[^1]
## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.9 Multi action (continued)


## Shutter (continued)

| ---- Channel 1 ----- | Multi Action |
| :--- | :--- |
| Channel 1 function | Shutter |
| Channel 1 Action 1 Type | Stop |
| Short push reaction | Cyclical Up/Down |
| Long push reaction | O No reaction |
| Long push release | Stop |


| Parameters | Setting |
| :--- | :--- |
| Short push reaction | No reaction |
|  | Cyclical Up / Down + stop |
|  | Up + stop |
|  | Down + stop |
|  | Cyclical Up / Down |
|  | Stop |
|  | Open slats |
|  | Close slats |
|  | Up |
|  | Down |

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": action does not change the object value and also does not send a telegram.
Cyclical Up / Down + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Down, Stop,
Up, Stop, Down, Stop,etc.
Up + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Up, Stop,,etc.
Down + stop : each short push transfers the following sequence command values into the communication object: Down, Stop, Down, Stop,,etc. Cyclical Up / Down: each short push transfers the following sequence command values into the communication object : Up, Down, Up, Down,,etc. Stop : a short push transfers into the communication object the stop command value (" 1 " or " 0 ")
Open slats: a short push transfers into the communication object the stop (open slats) command value ("0")
Close slats: a short push transfers into the communication object the stop (close slats) command value (" 1 ")
Up: a short push transfers into the communication object the Up command (value " 0 ")
Down: a short push transfers into the communication object the Down command (value" "1")

| Long push reaction | No reaction |
| :--- | :--- |
| Up |  |
| Down |  |
| Cyclical Up/Down |  |
| Stop |  |
| Cyclical Open/Close slats |  |
| Open slats |  |
| Close slats |  |

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": action does not change the object value and also does not send a telegram.
Up: a long push action send is transferred into the communication object the Up command (value " 0 ")
Down: a long push action send the Down command (value"1")
Cyclical Up / Down: each short push send the following sequence commands: Up, Down, Up, Down,,etc.
Stop : a long push action send the stop command (value" 1 " or " 0 ")
Cyclical Open /Close slats : each short push send the following sequence commands : Open slats, Close slats, Open slats, Close slats
Open slats: a long push action send is transferred into the communication object the stop (open slats) command (value " 0 ")
Close slats: a long push action send is transferred into the communication object the stop (close slats) command (value " 1 ")

| Long push release | No reaction |
| :--- | :--- |
| Stop |  |

Here an adjustment is made to define which value is written into the storage cell of the communication object and sent after a long press release of the push button related to the Channel.
"No reaction": action does not change the object value and also does not send a telegram.
Stop : the stop command (value " 1 " or " 0 ") is transferred into the communication object and sent.

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.9 Multi action (continued)


## Scenario:

This function allows to recall/save up to 64 scene.
A short push recalls the scene and a special long push (10s) allows to save a scene; for the defined scene number all the involved actuators statuses are saved.

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 4(13,22,31) \\ 4(13,22,31,40,49) \end{gathered}$ | Channel 1 (2,3,4) Action 1 Channel 1 ( $2,3,4,5,6$ ) Action 1 | 8-bits scene | 17.001 DP_SceneNumber <br> (1 Byte) | CT |
| The telegrams to recall the scene with the configured number (1..64) are sent via the group address link with this object. |  |  |  |  |
| $\begin{gathered} 8(17,26,35) \\ 8(17,26,35,44,53) \end{gathered}$ | Channel 1 ( $2,3,4$ ) Action 2 Channel 1 (2,3,4,5,6) Action 2 | 8-bits scene | 17.001 DP_SceneNumber (1 Byte) | CT |
| The telegrams to recall the scene with the configured number (1..64) are sent via the group address link with this object. |  |  |  |  |


| ----- Channel 1----- |  |
| :--- | :--- |
| Channel 1 function | Multi Action |
| Channel 1 Action 1 Type | Scenario |
| Scene num. on short push | 1 |


| Parameters |  | Setting |
| :--- | :--- | :--- |
| Scene num. on short push (0:none) | $0 . .64$ |  |

This parameters determines which scene (1..64) has to be recalled on rising edge.
If value " 0 " is set, no scene is going to be recalled

1x1 unsigned byte:

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $4(13,22,31)$ | Channel 1 (2,3,4) Action 1 | Unsigned Value | 5.010 DP_Value_1_Ucount | (1 Byte) |

The telegrams with the unsigned value are sent via the group address linked with this object


| Parameters | Setting |  |  |
| :--- | :--- | :---: | :---: |
| Send on... | Short push <br> Long push |  |  |
| Here an adjustment is made to define the lenght of the push to send the byte value. |  |  |  |
| Byte value on short push (0-255) |  |  | $0 . .255,1$ | | Here an adjustment is made to define which unsigned value is written into the storage cell of the communication object and sent after a rising edge |
| :--- |
| in the signal status of the channel (input). The rising edge corresponds to a change in the signal status of the Channel from logical " 0 " to " 1 ". |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.9 Multi action (continued)

Scenario (continued)
2x1 unsigned byte:

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $4(13,22,31)$ | Channel 1 (2,3,4) Action 1 | Unsigned Value | 5.010 DP_Value_1_Ucount |  |
| $4(13,22,31,40,49)$ | Channel 1 (2,3,4,5,6) ACtion 1 Byte) |  |  |  |

The telegrams with the unsigned value are sent via the group address linked with this object


| Parameters |  |
| :--- | :--- |
| Byte value on short push (0-255) | $0 . .255,1$ |

Here an adjustment is made to define which unsigned value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
Byte value on long push (0-255)
0..255, 0

Here an adjustment is made to define which unsigned value is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
10.2.1.10 Conditional mode

This function allows to send a telegram of the same type in two groups according to Mode 1 or 2 :

- When mode 1 is active, is sent Channel X.
- When mode 2 is active, is sent Channel X Action 2.

Switching:

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 1(10,19,28) \\ 1(10,19,28,37,46) \end{gathered}$ | Channel $1(2,3,4)$ Mode 1 Channel 1 ( $2,3,4,5,6$ ) Mode 1 | Switching | 1.01 DP_Switch (1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |
| $\begin{gathered} 2(11,20,29) \\ 2(11,20,29,38,47) \end{gathered}$ | Channel $1(2,3,4)$ Mode 1 Channel 1 (2,3,4,5,6) Mode 1 | Switching Status | 1.01 DP_Switch (1 bit) | CW |
| Switching status are received via the group address linked with this object. They are only visible if "Add status object" parameter value is set to "yes". |  |  |  |  |
| $\begin{gathered} 8(17,26,35) \\ 8(17,26,35,44,53) \\ \hline \end{gathered}$ | Channel $1(2,3,4)$ Mode 2 Channel 1 (2,3,4,5,6) Mode 2 | Switching | 1.01 DP_Switch (1 bit) | CWT |

Switching telegrams are sent via the group address linked with this object.

| ----- Channel 1 ----- |  |
| :--- | :--- |
| Channel 1 function | Conditional mode |
| Channel 1 Action Type | Switching |
| Short push reaction | Toggle |
| Long push reaction | No reaction |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.10 Conditional mode (continued)

Switching (continued):

| Parameters | Setting |
| :--- | :--- |
| Short push reaction | No reaction |
|  | On |
|  | Off |
|  | Toggle |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": A short push button action does not change the object value and also does not send a telegram.
"On": After a short push, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After a short push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent,

| Long push reaction | No reaction |
| :--- | :--- |
|  | On |
|  | Off |
|  | Toggle |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": A long push button action does not change the object value and also does not send a telegram.
"On": After a long push, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After a long push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a long push, the switching value stored in the communication object is inverted and the new value is sent

Shutter:

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $1(10,19,28)$ | Channel 1 $(2,3,4)$ Mode 1 | Shutter Up/Down | 1.008 DP_UpDown (1 bit) | CWT |
| $1(10,19,28,37,46)$ | Channel 1 $(2,3,4,5,6)$ Mode 1 |  |  |  |

The movement commands Up/Down are sent via the address linked with this object in order to raise/lower the solar protection.

| $7(16,25,34)$ | Channel 1 (2,3,4) Mode 1 | Shutter Stop - slats | 1.009 DP_OpenClose (1 bit) | CWT |
| :---: | :---: | :---: | :---: | :---: |
| $7(16,25,34,42,52)$ | Channel 1 (2,3,4,5,6) Mode 1 |  |  |  |

The command "STOP" or "Slats OPEN/CLOSE" are sent via the group address linked with this object.

| $6(15,24,33)$ | Channel 1 (2,3,4) Mode 1 | Shutter Status | 5.001 DP_Scaling (1 Byte) | CW |
| :---: | :---: | :---: | :---: | :---: |
| $6(15,24,33,43,51)$ | Channel 1 $(2,3,4,5,6)$ Mode 1 |  |  | CW |

The shutter status telegrams are received from the shutter actuator via the group address linked with this object.

| $8(17,26,35)$ | Channel 1 (2,3,4) Mode 2 | Shutter Up/Down | 1.008 DP_UpDown (1 bit) | CWT |
| :---: | :--- | :--- | :--- | :---: |
| $8(17,26,35,44,53)$ | Channel 1 (2,3,4,5,6) Mode 2 |  |  |  |

The movement commands Up/Down are sent via the address linked with this object in order to raise/lower the solar protection.

| $9(18,27,36)$ | Channel 1 (2,3,4) Mode 2 | Shutter Stop - slats | 1.009 DP_OpenClose (1 bit) | CWT |
| :---: | :---: | :---: | :---: | :---: |
| $9(18,27,36,45,54)$ | Channel 1 $(2,3,4,5,6)$ Mode 2 |  |  |  |

The command "STOP" or "Slats OPEN/CLOSE" are sent via the group address linked with this object.

| ----- Channel 1 ----- |  |
| :--- | :--- |
| Channel 1 function | Conditional mode |
| Channel 1 Action Type | Shutter |
| Short push reaction | Stop |
| Long push reaction | Cyclical Up/Down |
| Long push release | O No reaction |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.10 Conditional mode (continued)

Shutter (continued):

| Parameters | Setting |
| :--- | :--- |
| Short push reaction | No reaction |
|  | Cyclical Up / Down + stop |
|  | Up + stop |
|  | Down + stop |
|  | Cyclical Up / Down |
|  | Stop |
|  | Open slats |
|  | Close slats |
|  | Up |
|  | Down |

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": action does not change the object value and also does not send a telegram.
Cyclical Up / Down + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Down, Stop,
Up, Stop, Down, Stop,etc.
Up + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Up, Stop,,etc.
Down + stop : each short push transfers the following sequence command values into the communication object: Down, Stop, Down, Stop,,etc.
Cyclical Up / Down: each short push transfers the following sequence command values into the communication object : Up, Down, Up, Down,,etc.
Stop : a short push transfers into the communication object the stop command value (" 1 " or " 0 ")
Open slats: a short push transfers into the communication object the stop (open slats) command value ("0")
Close slats: a short push transfers into the communication object the stop (close slats) command value (" 1 ")
Up: a short push transfers into the communication object the Up command (value " 0 ")
Down: a short push transfers into the communication object the Down command (value " 1 ")

| Long push reaction | No reaction |
| :--- | :--- |
|  | Up |
|  | Down |
|  | Cyclical Up/Down |
|  | Stop |
| Cyclical Open/Close slats |  |
|  | Open slats |
|  | Close slats |

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": action does not change the object value and also does not send a telegram.
Up: a long push action send is transferred into the communication object the Up command (value " 0 ")
Down: a long push action send the Down command (value" 1 ")
Cyclical Up / Down: each short push send the following sequence commands: Up, Down, Up, Down,,etc.
Stop : a long push action send the stop command (value " 1 " or " 0 ")
Cyclical Open /Close slats : each short push send the following sequence commands : Open slats, Close slats, Open slats, Close slats
Open slats: a long push action send is transferred into the communication object the stop (open slats) command (value " 0 ")
Close slats: a long push action send is transferred into the communication object the stop (close slats) command (value " 1 ")

| Long push release | No reaction <br> Stop |
| :--- | :--- |
| Here an adjustment is made to define which value is written into the storage cell of the communication object and sent after releasing a long press |  |
| on the push button related to the Channel. |  |
| "No reaction": action does not change the object value and also does not send a telegram. |  |
| Stop : the stop command (value " 1 " or " 0 ") is transferred into the communication object and sent |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.10 Conditional mode (continued)


## Scenario :

This function allows to recall/save up to 64 scene.
A short push recalls the scene and a special long push (10s) allows to save a scene; for the defined scene number all the involved actuators statuses are saved.

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $4(13,22,31)$ | Channel 1 (2,3,4) Action 1 | 8-bits scene | 17.001 DP_SceneNumber | CT |
| $4(13,22,31,40,49)$ | Channel 1 (2,3,4,5,6) Action 1 |  | (1 Byte) |  |

## The telegrams to recall the scene with the configured number (1..64) are sent via the group address link with this object.

| ----- Channel 1 ----- |  |
| :--- | :--- |
| Channel 1 function | Conditional mode |
| Channel 1 Action Type | Scenario |
| -- Mode 1 -- |  |
| Scene num. on short push | 1 |
| - Mode 2 -- |  |
| Scene num. on short push 1 |  |

Mode 1

| Parameters | Setting |
| :--- | :--- |
| Scene num. on short push | $0 . .64$ |
| This parameters determines which scene (1..64) has to be recalled on rising edge when mode 1 is active |  |
| If value " 0 " is set, no scene is going to be recalled |  |

## Mode 2

| Parameters | Setting |
| :--- | :--- |
| Scene num. on short push | $0 . .64$ |
| This parameters determines which scene (1..64) has to be recalled on rising edge when mode 2 is active |  |

This parameters determines which scene (1..64) has to be recalled on rising edge when mode 2 is active
If value " 0 " is set, no scene is going to be recalled

Dimming :

| No. | Object name | Function | DP | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $1(10,19,28)$ | Channel $1(2,3,4)$ Mode 1 | Switching | 1.01 DP_Switch ( 1 bit) | CWT |
| $1(10,19,28,37,46)$ | Channel $1(2,3,4,5,6)$ Mode 1 |  |  |  |

Switching telegrams are sent via the group address linked with this object.

| $6(15,24,33)$ | Channel 1 (2,3,4) Mode 1 | Value Status | 5.001 DP_Scaling (1 Byte) | CW |
| :---: | :---: | :---: | :---: | :---: |
| $6(15,24,33,42,51)$ | Channel 1 (2,3,4,5,6) Mode 1 |  |  |  |

The dimming status telegrams are received from the dimming actuator via the group address linked with this object.

| $8(17,26,35)$ | Channel 1 (2,3,4) Mode 2 | Switching | 1.01 DP_Switch (1 bit) | CWT |
| :---: | :---: | :---: | :---: | :---: |
| $8(17,26,35,44,53)$ | Channel 1 (2,3,4,5,6) Mode 2 |  |  |  |

Switching telegrams are sent via the group address linked with this object.

| $5(14,23,32)$ | Channel 1 (2,3,4) Mode 1 | Dimming | 3.007 DP_Control_Dimming |
| :---: | :--- | :---: | :---: | :---: |
| $5(44,23,32,41,50)$ | Channel 1 (2,3,4,5,6) Mode 1 |  |  |$\quad$| CT |
| :---: |

The dimming telegrams are sent to the dimming actuator via the group address linked with this object.

| $9(18,27,36)$ <br> $9(18,27,36,45,54)$ | Channel 1 $(2,3,4)$ Mode 2 <br> Channel 1 $(2,3,4,5,6)$ Mode 2 | Dimming | 3.007 DP_Control_Dimming <br> $(4$ bit $)$ | CT |
| :---: | :---: | :---: | :---: | :---: |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.10 Conditional mode (continued)

Dimming (continued):

| ----- Channel 1 ----- |  |
| :--- | :--- |
| Channel 1 function | Conditional mode |
| Channel 1 Action Type | Dimming |
| Switching value on short push | Toggle |
| Dimming value on long push | Dim $+/-$ |
| Dimming value on release push | O Stop |


| Parameters | Setting |
| :--- | :--- |
| Switching value on short push | No reaction |
|  | On |
|  | Off |
|  | Toggle |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": A short push does not change the object value and also does not send a telegram.
"On": After a short press, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After a short press, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a short press, the switching value stored in the communication object is inverted and the new value is sent

| Dimming value on long push | $\operatorname{Dim}+/-$ |
| :--- | :--- |
| $\operatorname{Dim}+$ |  |
| $\operatorname{Dim}-$ |  |

Here an adjustment is made to define which dimming value is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": A long push does not change the object value and also does not send a telegram.
"Dim+/-": After a long press, the dimming value stored in the communication object is inverted and the new value is sent
"Dim +" After a long press, the dimming value "Increase 100\%" is transferred into the communication object and sent.
"Dim -": After a long press, the dimming value "Decrease 100\%" is transferred into the communication object and sent.

| Dimming value on release push | No reaction <br> Stop |
| :--- | :--- |

Here an adjustment is made to define which dimming value is written into the storage cell of the communication object and sent after releasing a long press of the push button related to the Channel.
"No reaction": A long push button action does not change the object value and also does not send a telegram.
"Stop": When the push button is released after a long push, the dimming value "Stop" is transferred into the communication object and sent.

1x1 unsigned byte :

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 4(13,22,31) \\ 4(13,22,31,40,49) \end{gathered}$ | Channel $1(2,3,4)$ Mode 1 Channel 1 (2,3,4,5,6) Mode 1 | Unsigned Value | 5.010 DP_Value_1_Ucount <br> (1 Byte) | CT |
| The telegrams with the unsigned value are sent via the group address linked with this object |  |  |  |  |
| $\begin{gathered} \hline 8(17,26,35) \\ 8(17,26,35,44,53) \\ \hline \end{gathered}$ | Channel $1(2,3,4)$ Mode 2 Channel 1 ( $2,3,4,5,6$ ) Mode 2 | Unsigned Value | 5.010 DP_Value_1_Ucount <br> (1 Byte) | CT |
| The telegrams with the unsigned value are sent via the group address linked with this object |  |  |  |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.10 Conditional mode (continued)

1x1 unsigned byte (continued):

| ----- Channel 1 ----- |  |  |
| :---: | :---: | :---: |
| Channel 1 function | Conditional mode | * |
| Channel 1 Action Type | $1 \times 1$ unsigned byte | $\checkmark$ |
| -- Mode 1 -- |  |  |
| Send on ... | O short push $\bigcirc$ long push |  |
| Byte value on short push (0-255) | 1 | $\stackrel{\rightharpoonup}{*}$ |
| -- Mode 2 -- |  |  |
| Send on ... | O short push long push |  |
| Byte value on short push (0-255) | 1 | $\stackrel{\rightharpoonup}{*}$ |

Mode 1

| Parameters | Setting |
| :--- | :--- |
| Send on... | Short push <br> Long push |

Here an adjustment is made to define the length of push to send the byte value.

| Byte value on short push (0-255) | $0 . .255,1$ |
| :--- | :--- |

Here an adjustment is made to define which unsigned-8 bits value is written into the storage cell of the communication object and sent after a rising edge in the signal status of the channel (input). The rising edge corresponds to a change in the signal status of the Channel from logical " 0 " to " 1 ", when the mode 1 is active.

## Mode 2

| Parameters | Setting |
| :--- | :--- |
| Send on... | Short push <br> Long push |

Here an adjustment is made to define the length of push to send the byte value.

| Byte value on short push (0-255) | $0.255,1$ |
| :--- | :--- |

Here an adjustment is made to define which unsigned-8 bits value is written into the storage cell of the communication object and sent after a rising edge in the signal status of the channel (input). The rising edge corresponds to a change in the signal status of the Channel from logical " 0 " to " 1 ", when the mode 2 is active.
$2 \times 1$ unsigned byte:

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $4(13,22,31)$ | Channel 1 (2,3,4) Mode 1 | Unsigned Value | 5.010 DP_Value_1_Ucount |  |
| $4(13,22,31,40,49)$ | Channel 1 (2,3,4,5,6) Mode 1 |  |  |  |

[^2]
## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.1 Use separately (continued)
10.2.1.10 Conditional mode (continued)
$2 \times 1$ unsigned byte (continued):

| ----- Channel 1 ------ |  |
| :--- | :--- |
| Channel 1 function | Conditional mode |
| Channel 1 Action Type | $2 \times 1$ unsigned byte |
| -- Mode 1 -- |  |
| Byte value on short push $(0-255)$ | 1 |
| Byte value on long push $(0-255)$ | 0 |
| -- Mode 2 -- |  |
| Byte value on short push $(0-255)$ | 1 |
| Byte value on long push $(0-255)$ | 0 |

Mode 1

| Parameters | Setting |
| :--- | :--- |
| Byte value on short push (0-255) | $0 . .255,1$ |
| Here an adjustment is made to define which unsigned 8 bits value is written into the storage cell of the communication object and sent after short |  | pressing of the push button related to the channel, when the mode 1 is active.


| Byte value on long push (0-255) | $0 . .255,0$ |
| :--- | :--- |

Here an adjustment is made to define which unsigned value is written into the storage cell of the communication object and sent after long pressing the push button related to the channel, when the mode 1 is active.

## Mode 2

| Parameters |  | Setting |
| :--- | :--- | :--- |
| Byte value on short push (0-255) | $0 . .255,1$ |  |

Here an adjustment is made to define which unsigned value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel, when the mode 2 is active.

| Byte value on long push (0-255) | $0.255,0$ |
| :--- | :--- |

Here an adjustment is made to define which unsigned value is written into the storage cell of the communication object and sent after long pressing the push button related to the channel, when the mode 2 is active.
10.2.1.11. Add Enable object

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $3(12,21,30)$ | Channel $1(2,3,4)$ | Enable | 1.02 DP_Enable ( 1 bit) | CW |
| $3(12,21,30,39,48)$ | Channel $1(2,3,4,5,6)$ |  |  |  |

Enable telegrams are received via the group address linked with this object. They are used to lock (disable) or unlock (enable) the corresponding channel.
They are only visible if "Add Enable object" parameter value is set to "yes".

| Add enable object $\quad$ No $\bigcirc$ Yes |
| :--- | :--- |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.2 Use Jointly
10.2.2.1 Switching

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 4 pushes 1 (19) 6 pushes $1(19,37)$ | Channel 1-2 (3-4) (5-6) | Switching | 1.01 DP_Switch ( 1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |
| 4 pushes 2 (20) 6 pushes $2(20,38)$ | Channel 1-2 (3-4) (5-6) | Switching Status | 1.01 DP_Switch ( 1 bit) | CW |
| Switching status are received via the group address linked with this object. |  |  |  |  |
| 4 pushes 3 (21) 6 pushes $3(21,39)$ | Channel 1-2 (3-4) (5-6) | Enable | 1.02 DP_Enable ( 1 bit) | CW |

Enable telegrams are received via the group address linked with this object. They are used to lock (disable) or unlock(enable) the corresponding channels.
They are only visible if "Add enable object" parameter value is set to yes.

| Usage type | use separatly O use jointly |
| :--- | :--- |
| Channel 1-2 function | Switching |
| Channel 1 - Short push reaction | On |
| Channel 2 - Short push reaction | Off |
| Add enable object | O No Yes |


| Parameters |  |
| :--- | :--- |
| Channel Xn - Short push reaction | No reaction |
|  | On |
|  | Off |
|  | Toggle |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": A short push does not change the object value and also does not lead to the sending of a telegram.
"On": After a short push, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After a short push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent
Channel Xn+1 - Short push reaction
No reaction
On
Off
Toggle

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": A short push does not change the object value and also does not send a telegram.
"On": After a short push, the switching value "ON" (binary value, " 1 ") is transferred into the communication object and sent.
"Off": After a short push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent
Add Enable object $\quad$ Yes / No
The parameter determines if the Channels (1-2 or 3-4) can be blocked via an additional Enable object or not. If the Channels are blocked (Enable value $=1$ ) the status changes of these channels are not transmitted.

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.2 Use Jointly (continued)
10.2.2.2 Dimming

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 4 pushes 1 (19) 6 pushes $1(19,37)$ | Channel 1-2 (3-4) (5-6) | Switching | 1.01 DP_Switch ( 1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |
| 4 pushes $5(23)$ 6 pushes $5(23,41)$ | Channel 1-2 (3-4) (5-6) | Dimming | 3.007 DP_Control_Dimming $(4 \mathrm{bit})$ | CT |
| Dimming telegrams are sent via the group address linked with this object |  |  |  |  |
| 4 pushes 6 (24) 6 pushes $6(24,42)$ | Channel 1-2 (3-4) (5-6) | Value Status | 5.001 DP_Scaling ( 1 byte) | CW |
| The dimming status telegrams are received from the dimming actuator via the group address linked with this object. |  |  |  |  |
| 4 pushes 3 (21) 6 pushes $3(21,39)$ | Channel 1-2 (3-4) (5-6) | Enable | 1.02 DP_Enable ( 1 bit ) | CW |

Enable telegrams are received via the group address linked with this object. They are used to lock (disable) or unlock(enable) the corresponding channels.
They are only visible if "Add Enable object" parameter value is set to "yes".

| Channel 1 - 2 function | Dimming |  |
| :--- | :--- | :--- |
| Channel 1 - Switching value on short push | On |  |
| Channel 1 - Switching value on long push | No reaction | O On |
| Channel 1 - Dimming value on long push | Dim + |  |
| Channel 1 - Dimming value on release push | O Stop | No reaction |
| Channel 2 - Switching value on short push | Off |  |
| Channel 2 - Switching value on long push | O | No reaction |
| Channel 2 - Dimming value on long push | Dim + | On |
| Channel 2 - Dimming value on release push | O | Stop |


| Parameters |  | Setting |
| :---: | :--- | :--- |
| Channel X - Switching value on short push | No reaction | Off |
|  | On | Toggle |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": A short push does not change the object value and also does not send a telegram.
"On": After a short push, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After a short push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent.
Channel X - Switching value on long push

No reaction
On

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": A long push does not change the object value and also does not send a telegram.
"On": After long push, the switching value "ON" (binary value, " 1 ") is transferred into the communication object and sent.

| Channel X - Dimming value on long push | $\operatorname{Dim}+$ |
| :--- | :--- |
|  | Nim - |
| No reaction |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.2 Use Jointly (continued)
10.2.2.2 Dimming (continued)

| Parameters | Setting |  |
| :---: | :--- | :--- |
| Channel X - Dimming value on release push | No reaction | Stop |

Here an adjustment is made to define which dimming value is written into the storage cell of the communication object and sent when long pressing the push button related to the Channel.
"No reaction": A long push button action does not change the object value and also does not send a telegram.
"Stop": When the push button is released after a long push, the dimming value "Stop" is transferred into the communication object and sent.

| Channel X +1 - Switching value on short push | No reaction |
| :--- | :--- |
| On |  |

Off
Off
Toggle
Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": A short push does not change the object value and also does send a telegram.
"On": After a short push, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
"Off": After a short push, the switching value "OFF" (binary value," 0 ") is transferred into the communication object and sent.
"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent

| Channel X +1 - Switching value on long push | No reaction |
| :--- | :--- |
| On |  |

Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": A long push does not change the object value and also does not lead to the sending of a telegram.
"On": An long push button action, the switching value "ON" (binary value," 1 ") is transferred into the communication object and sent.
Channel $\mathrm{X}+1$ - Dimming value on long push

| $\operatorname{Dim}+/-$ |
| :--- | :--- |
| $\operatorname{Dim}+$ |
| $\operatorname{Dim}-$ |
| No reaction |

Here an adjustment is made to define which dimming value is written into the storage cell of the communication object and sent after long pressing of the push button related to the channel.
"No reaction": A long push does not change the object value and also does not send a telegram.
"Dim+/-": After a long push, the dimming value stored in the communication object is inverted and the new value is sent
"Dim +" After a short push, the dimming value "Increase 100\%" is transferred into the communication object and sent.
"Dim -": After a short push, the dimming value "Decrease 100\%" is transferred into the communication object and sent.

| Channel X +1 - Dimming value on release push | No reaction <br> Stop |
| :--- | :--- |

Here an adjustment is made to define which dimming value is written into the storage cell of the communication object and sent when long pressing the push button related to the Channel.
"No reaction": A long push button action does not change the object value and also does not send a telegram.
"Stop": When the push button is released after a long push, the dimming value "Stop" is transferred into the communication object and sent.

| Add Enable object | Yes / No |
| :--- | :--- |

The parameter determines if the channels can be blocked via an additional Enable object or not. If the channels are blocked (Enable value $=1$ ) the status changes of these channels are not transmitted.

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.2 Use Jointly (continued)
10.2.2.2 Shutter 2-input

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 4 pushes 1 $(19)$ <br> 6 pushes $1(19,37)$ | Channel 1-2 (3-4)(5-6) | Shutter Up/Down | 1.008 DP_UpDown (1 bit) | CWT |

The movement commands Up/Down are sent via the address linked with this object in order to raise/lower the solar protection.

| 4 pushes $7(25)$ <br> $7(25,43)$ | Channel 1-2 (3-4) (5-6) | Shutter Stop - slats | 1.009 DP_OpenClose ( 1 bit) | CWT |
| :--- | :---: | :---: | :---: | :---: |
| The command "STOP" or "Slats OPEN/CLOSE" are sent via the group address linked with this object. |  |  |  |  |
| 4 pushes $6(24)$ <br> 6 pushes $6(24,42)$ | Channel 1-2 (3-4) (5-6) | Shutter Status | 5.001 DP_Scaling ( 1 Byte) | CW |
| The shutter status telegrams |  |  |  |  |
| 4 pushes $3(21)$ <br> 6 pushes $3(21,39)$ | Channel 1-2 (3-4) (5-6) | Enable | 1.03 DP_Enable ( 1 bit) | CW |

Enable telegrams are received via the group address linked with this object. They are used to lock (disable) or unlock(enable) the corresponding channels.
They are only visible if "Add Enable object " parameter value is set to yes.

| Channel 1-2 function | Shutter 2-inputs |
| :--- | :--- |
| Channel 1 - Short push reaction | Up + stop |
| Channel 1 - Long push reaction | Open slats |
| Channel 1 - Long push release | No reaction |
| Channel 2 - Short push reaction | Close slats |
| Channel 2 - Long push reaction | No reaction |
| Channel 2 - Long push release | Stop |
| Add enable object | No Yes |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.2 Use Jointly (continued)
10.2.2.2 Shutter 2-input (continued)

| Parameters |  |  |
| :--- | :--- | :--- |
| Channel X - Short push reaction | No reaction |  |
|  | Up + stop |  |
|  | Down + stop |  |
|  | Stop |  |
|  | Open slats |  |
|  | Close slats |  |
|  | Up |  |
|  | Down |  |

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": actions do not change the object value and also does not send a telegram.
Up, Stop, Down, Stop,etc.
Up + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Up, Stop,,etc.
Down + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Up, Stop,,etc.
Stop : a short push transfers into the communication object the stop command value (" 1 " or " 0 ")
Open slats: a short push transfers into the communication object the stop (open slats) command value ("0")
Close slats: a short push transfers into the communication object the stop (close slats) command value (" 1 ")
Up: a short push transfers into the communication object the Up command (value " 0 ")
Down: a short push transfers into the communication object the Down command (value " 1 ")

| Channel X - Long push reaction | No reaction |
| :--- | :--- |
|  | Up |
|  | Down |
|  | Stop |
|  | Open slats |
|  | Close slats |

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after long pressing the push button related to the channel.
"No reaction": actions do not change the object value and also do not send a telegram.
Up: a long push action send is transferred into the communication object the Up command (value " 0 ")
Down: a long push action send the Down command (value" 1 ")
Stop : a long push action send the stop command (value " 1 " or " 0 ")
Open slats: a long push action send is transferred into the communication object the stop (open slats) command (value "0")
Close slats: a long push action send is transferred into the communication object the stop (close slats) command (value " 1 ")

| Channel X - Long push release | No reaction <br> Stop |
| :--- | :--- |

Here an adjustment is made to define which value is written into the storage cell of the communication object and sent a long press release of the push button related to the channel.
"No reaction": actions do not change the object value and also do not send a telegram.
Stop : the stop command (value " 1 " or " 0 ") is transferred into the communication object and sent

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.2 Channels configuration (1,2,3,4,5,6) (continued)
10.2.2 Use Jointly (continued)
10.2.2.2 Shutter 2-input (continued)

| Parameters | Setting |
| :--- | :--- |
| Channel $X+1$ - Short push reaction | No reaction |
|  | Up + stop |
|  | Down + stop |
|  | Stop |
|  | Open slats |
|  | Close slats |
|  | Up |
|  | Down |

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after short pressing the push button related to the channel.
"No reaction": actions do not change the object value and also do not send a telegram.
Up + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Up, Stop,,etc.
Down + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Up, Stop,,etc.
Stop : a short push transfers into the communication object the stop command value (" 1 " or " 0 ")
Open slats: a short push transfers into the communication object the stop (open slats) command value (" 0 ")
Close slats: a short push transfers into the communication object the stop (close slats) command value (" 1 ")
Up: a short push transfers into the communication object the Up command (value " 0 ")
Down: a short push transfers into the communication object the Down command (value " 1 ")
Channel X +1 - Long push reaction
No reaction
Up
Down
Stop
Open slats
Close slats

Here an adjustment is made to define which movement command is written into the storage cell of the communication object and sent after long pressing the push button related to the Channel.
"No reaction": actions do not change the object value and also do not send a telegram.
Up: a long push action send is transferred into the communication object the Up command (value " 0 ")
Down: a long push action send the Down command (value " 1 ")
Stop : a long push action send the stop command (value " 1 " or " 0 ")
Open slats: a long push action send is transferred into the communication object the stop (open slats) command (value " 0 ")
Close slats: a long push action send is transferred into the communication object the stop (close slats) command (value " 1 ")

| Channel X - Long push release | No reaction / Stop |
| :--- | :--- |

Here an adjustment is made to define which value is written into the storage cell of the communication object and sent a long press release of the push button related to the channel.
"No reaction": actions do not change the object value and also do not send a telegram.
Stop : the stop command (value " 1 " or " 0 ") is transferred into the communication object and sent

## Add Enable object

Yes / No
The parameter determines if the Channels (1-2 or 3-4) can be blocked via an additional Enable object or not. If the Channels are (1-2 or 3-4) is blocked (Enable value $=1$ ) the status changes of these channels are not transmitted.

## 11. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.3 Leds configuration
10.3.1 Same for all / Configuration independently

| ---- State 1 ----- |  |  |
| :--- | :--- | :--- |
| -- ON status -- | Green | - |
| Led color | On | - |
| Led behaviour |  |  |
| -- OFF status -- | Blue | - |
| Led color | On | - |
| Led behaviour |  |  |

## State 1

| Led color | Green <br> Blue <br> White <br> Orange <br> Gold <br> Yellow <br> Turquoise <br> Cyan <br> Light blue <br> Violet <br> Magenta <br> Purple |
| :---: | :---: |
| The parameter determines the color of led X for State 1 |  |
| Led behaviour | Off <br> On <br> Slow blink <br> Fast blink <br> Soft blink <br> Flash 1 <br> Flash 2 <br> Flash 3 |

State 2


## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

■ 10.3 Leds configuration (continued)
State 3

| Led color | Green <br> Blue <br> White <br> Orange <br> Gold <br> Yellow <br> Turquoise <br> Cyan <br> Light blue <br> Violet <br> Magenta <br> Purple |
| :---: | :---: |
| The parameter determines the color of led X for State 3 |  |
| Led behaviour | Off <br> On <br> Slow blink <br> Fast blink <br> Soft blink <br> Flash 1 <br> Flash 2 <br> Flash 3 |
| The parameter determines the behaviour of led X for State 3 |  |
| State 4 |  |
| Led color | Green <br> Blue <br> White <br> Orange <br> Gold <br> Yellow <br> Turquoise <br> Cyan <br> Light blue <br> Violet <br> Magenta <br> Purple |
| The parameter determines the color of led X for State 4 |  |
| Led behaviour | Off <br> On <br> Slow blink <br> Fast blink <br> Soft blink <br> Flash 1 <br> Flash 2 <br> Flash 3 |
| The parameter determines the behaviour of led X for State 4 |  |

## Same for all

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 55 | Leds-On Off Status | Status | 1 bit | CW |
| The telegram to choose On or Off status is sent via the group adress linked with this object. |  |  |  |  |
| 74 | Leds-State 1 | Active State1 | 1 bit | CW |
| The telegram to active led state is sent via the group adress linked with this object. |  |  |  |  |
| 75 | Leds-State 2 | Active State2 | 1 bit | CW |
| The telegram to active led state is sent via the group adress linked with this object. |  |  |  |  |
| 76 | Leds State 3 | Active State3 | 1 bit | CW |
| The telegram to active led state is sent via the group adress linked with this object. |  |  |  |  |
| 77 | Leds State 4 | Active State4 | 1 bit | CW |

The telegram to active led state is sent via the group adress linked with this object.

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.3 Leds configuration (continued)
10.3.1 Same for all / Configuration independently (continued)


## Configuration Independently

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $55(56,57)$ | Led $1-$ On Off Status | Status | 1 bit | CW |
| The telegram to choose On or Off status is sent via the group adress linked with this object. |  |  |  |  |
| $74(78,82)$ | Led $1(2,3)$ State 1 | Active State1 | 1 bit |  |

The telegram to active led state is sent via the group adress linked with this object. The activation of state 1 disable all others states but you can activate an other state after without disable state 1

| $75(79,83)$ | Led $1(2,3)$ State 2 | Active State2 | 1 bit | CW |
| :---: | :---: | :---: | :---: | :---: |

The telegram to active led state is sent via the group adress linked with this object. If two states or more are activated, it's the state with the greater number who has priority, for example, if the state 2 and state 3 are activated, leds are in state 3

| number who has priority, for example, if the state 2 and state 3 are activated, leds are in state 3 | 1 bit | CW |  |
| :---: | :---: | :---: | :---: | :---: |
| $76(80,84)$ | Led $1(2,3)$ State 3 | Active State3 | CW |

The telegram to active led state is sent via the group adress linked with this object. If two states or more are activated, it's the state with the greater number who has priority, for example, if the state 2 and state 3 are activated, leds are in state 3

| $77(81,85)$ | Led $1(2,3)$ State 4 | Active State4 | 1 bit | CW |
| :--- | :---: | :---: | :---: | :---: |

The telegram to active led state is sent via the group adress linked with this object. If two states or more are activated, it's the state with the greater number who has priority, for example, if the state 2 and state 3 are activated, leds are in state 3
10.3.2 On value

State 1


| Led color | Green <br> Blue <br> White <br> Orange <br> Gold <br> Yellow <br> Turquoise <br> Cyan <br> Light blue |
| :--- | :--- |
|  | Violet <br> Magenta <br> Purple |
| The parameter determines the color of led X for State 1 | Off |

10. COMMUNICATION OBJECTS DESCRIPTION (continued)

- 10.3 Leds configuration (continued)
10.3.2 On value (continued)


## State 2

| Led color | Green <br> Blue <br> White <br> Orange <br> Gold <br> Yellow <br> Turquoise <br> Cyan <br> Light blue <br> Violet <br> Magenta <br> Purple |
| :---: | :---: |
| The parameter determines the color of led X for State 2 |  |
| Led behaviour | Off <br> On <br> Slow blink <br> Fast blink <br> Soft blink <br> Flash 1 <br> Flash 2 <br> Flash 3 |
| The parameter determines the behaviour of led X for State 2 |  |
| Min value of state 2 | 0....... 255 |
| Here a value to define the begining of interval values which active the state 2 |  |
| Max value of state 2 | 0....... 255 |
| Here a value to define the end of interval values which active the state 2 |  |

## State 3

| Led color | Green <br> Blue <br> White <br> Orange <br> Gold <br> Yellow <br> Turquoise <br> Cyan <br> Light blue <br> Violet <br> Magenta <br> Purple |
| :---: | :---: |
| The parameter determines the color of led X for State 3 |  |
| Led behaviour | Off <br> On <br> Slow blink <br> Fast blink <br> Soft blink <br> Flash 1 <br> Flash 2 <br> Flash 3 |
| The parameter determines the behaviour of led X for State 3 |  |
| Min value of state 3 | 0....... 255 |
| Here a value to define the begining of interval values which active the state 3 |  |
| Max value of state 3 | 0....... 255 |
| Here a value to define the end of interval values which active the state 3 |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

■ 10.3 Leds configuration (continued)
10.3.2 On value (continued)

State 4


Led value which define the state is sent via the group adress linked with this object.
If the value does not correspond to any interval, state 1 is activated.

## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

## - 10.4 Leds color and behaviour updating flowchart

The led color and behaviour changings are performed when :

- Is received an object of: Status, Alarm, Function, Enable.
- Is pushed a button : in shutter mode, 8 -bits scene control, priority, counting, $1 \times 1$ unsigned byte, $2 \times 1$ unsigned byte are active.


## On Value



## 10. COMMUNICATION OBJECTS DESCRIPTION (continued)

■ 10.5 Leds intensity update flowchart
The led color and behaviour changings are performed when :

- Is received an object of : Status, Alarm, Function, Enable.
- Is pushed a button : in shutter mode, 8 -bits scene control, priority, counting, $1 \times 1$ unsigned byte, $2 \times 1$ unsigned byte are active.

The leds intensity changings are perfomed when :

- Is received an object of : Standby, Eco mode, Normal mode, Eco/Normal, Alarm
- Is pressed a push-button.

After Standby or Alarm mode the level is set to the previous level (Normal/Eco).
Standby mode is disables if any button is pressed.


## ■ 10.6 No configuration status and reset procedure

## Product not yet configured

The product has no physical address and no group addresses associated.
The leds change colors randomly every 200 ms .

## Reset procedure




[^0]:    Switching status are received via the group address linked with this object

[^1]:    The command "STOP" or "Slats OPEN/CLOSE" are sent via the group address linked with this object.

[^2]:    The telegrams with the unsigned value are sent via the group address linked with this object

