KNX four channels controls

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## 1. USE

The KNX 4 channels commands are wiring devices suitable to control lights, shutters or other kind of loads. They are equipped with 4 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 4 RGB LED fully configurable in term of colors and blinking mode and can switch operating profiles according to defined events or conditions

## 2. RANGE

| Mosaic control (1 button, 1 actuation point) | Catalogue number |
| :---: | :---: |
| Mosaic control (1 button, 2 actuation points) | 078489 |

## 3. TECHNICAL FEATURES

- Supply voltage: 29 V -
- KNX connector: red/black
- Automatic clamp
- Terminal capacity: $4 \times(\varnothing 0.6<=$ - $<\varnothing 0.8$ )
- KNX BUS absorption: 7 mA max
- Usage temperature: $-5^{\circ} \mathrm{C} /+45^{\circ} \mathrm{C}$
- Storage temperature: $-25^{\circ} \mathrm{C} /+30^{\circ} \mathrm{C}$


## 3. TECHNICAL FEATURES (CONTINUED)

- IP 40: assembled product
- IP 20: without rocker plate
- IK 02
- Compliant with installation and manufacturing standards, see E-catalogue


## 4. OVERALL DIMENSIONS (mm)

## 0 784 89/95



078491


0675 70/79


5735 02/03


## 5. CONNECTION


$29 \mathrm{~V}=-$

| \% | $4 x(00,5<0, \square(00 \beta)$ |
| :---: | :---: |

## 6. DESCRIPTION OF THE MECHANISMS



078496


LED 2 LED 4

0675 70/79


LED 2 LED 4


078491


LED 2 LED 4


067571


LED 2 LED 4


## - 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

|  | Possible action |  |
| :---: | :---: | :---: |
| Switch ON/OFF | - Pushbutton or remote switch Cyclical ON/OFF: short press | ON/OFF |
|  | - Switch ON: short press at top OFF: short press at bottom |  |
| Roller blinds | - 1 actuation point Raise/lower: cyclical mode, long press Stop blind: short press |  |
|  | - 2 actuation points (pair) <br> Cyclical raise/stop: short press at top Cyclical lower/stop: short press at bottom Orientation of slats: long press at top or bottom Stop slats: release |  |
|  |  |  |


| 7.1.1 Main functions (continued) |  |  |
| :---: | :---: | :---: |
| Dim | - 1 actuation point <br> Cyclical ON/OFF: short press <br> Cyclical dim +, dim -: press and hold down Stop dimming: release | ON/OFF |
|  |  |  |
|  |  | STOP |
|  | - 2 actuation points <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 |  |
|  |  |  |
|  |  |  |
| 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 <br> $\triangle$ The length of this press cannot be configured in the ETS |  |
|  |  |  |

### 7.1.2 Additional functions

| Send a value (lighting level, position of blinds, slats, etc.) | - Short press: send a value between 0 and 255. Example: Lighting 33\% (value 85) | Send value |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Send 2 values (lighting level, position of blinds, slats, etc.) | - Short press: send 1st value between 0 and 255. Example : Lighting 10\% (value 25) <br> - Long press: send 2nd value between 0 and 255. Example : Lighting 50\% (value 127) | Send value 1 |  |  |
|  |  | Send value 2 |  |  |
| Send priority (lock) | - Long press: lock "ON" or lock "OFF" <br> - Short press: unlock "ON" or unlock "OFF" Example: on a long press, "lock ON", the output of the actuator will remain locked at "ON" until a short press to unlock it ("unlock ON", output at "ON", "unlock OFF", output at "OFF") | Lock <br> ON <br> OFF |  |  |
|  |  | Unlock <br> ON $\qquad$ <br> OFF |  |  |
| 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 |  |  |
| 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. The control can steer different circuits according to an event. <br> Example: in a meeting room, one press activates the switch-on of the 4 luminaires (mode 1). 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> Without partition <br> Mode 2 <br> With mobile partition |

## - 7.2 Operation of the LEDs

Each control has a number of configurable RGB LEDs (1 to 4 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

| Key: |  |  |  |
| :---: | :---: | :---: | :---: |
| ( LED goes off | LED blinks slowly | 深 LED blinks quickly | \% LED flashes |

- 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 EIB, 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 the ETS software (versions ETS 3 and 4).

## - General Parameters

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

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

- Communication Objects

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

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 39 | 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 |  |  |  |  |
| 40 | 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 |  |  |  |  |
| 41 | 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> Independently <br> Pilot light |
| :---: | :---: |
| This parameter determines the type of configuration for the LEDs |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

- 10.1.2 Normal intensity
(Mode 1 parameters)
Normal intensity


| 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
No

No
Eco is not usable, no accessible communication objects.

> Use additional Eco intensity
$\square$
Yes (makes available mode eco object)

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 34 | 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 <br> True : Eco mode activation telegrams are sent via the group address linked with this object |  |  |  |  |
| 35 | Leds Eco | Eco intensity | 1.010 DP_Start (1 bit ) |  |
| Eco mode activation telegrams are sent via the group address linked with this object | CW |  |  |  |
| 36 | Leds Normal | Normal intensity | 1.010 DP_Start (1 bit ) |  |
|  |  |  |  |  |
|  |  |  |  |  |


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

- 10.1.4 Use standby

Controlled by communication object.
Use standby

No
No
Standby is not usable, no accessible communication objects.
Use standby


Yes (makes available the standby object)

| No. | Object name | Function | Size | Flags |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | Leds standby | Standby | 1.010 DP_Start (1 bit ) | CW |  |
|  |  |  |  |  |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

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

| Invert standby logic | No <br> Yes |
| :---: | :---: |
| This parameter determines the type of logic for active standby |  |

- 10.1.5 Use context information

The contextual information are all the feedback the system provide via the bus and displayed through the LEDs
The contextual information are displayed each time a push-button is pressed

## Use context information

No

No
Context information is not usable, no accessible communication object.
Use context information
Feed back time when context information
Context information led behaviour
Context information color


Yes (makes available the contextual information object)

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 30 | Channel $1(2,3,4)$ | ContextInfo | 1.010 DP_Start (1 bit ) | CW |

Context info telegram are received via the group address linked with this object. They are used to inform on event when you push on channel linked.

| Parameters <br> These parameters determine the behaviour of the led after a push when <br> the "context info is used". | Setting |
| :---: | :---: |
| Feed back time when Context Info | 500 ms <br> 1 second <br> 2 seconds <br> 5 seconds <br> 10 seconds <br> 30 seconds <br> 1 minute <br> 1 min . 30s <br> 2 min . <br> 10 min . <br> 15 min . <br> 30 min . <br> 45 min <br> 1 h <br> 1 h 30 <br> Infinite |
| Context information led behaviour | Off <br> On <br> Slow blink <br> Fast blink <br> Soft blink <br> Flash 1 <br> Flash 2 <br> Flash 3 <br> Pulse |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

| Parameters <br> These parameters determine the behaviour of the led after a push when <br> the "context info is used". | Setting |
| :--- | :--- |
| Context information color ( if Feed back time Contextlnfo is used) | Green (Vert) <br> Blue (Bleu) <br> White (Blanc) <br> Orange <br> Gold (Or) <br> Yellow (Jaune) <br> Turquoise <br> Cyan <br> Light blue (Bleu) <br> Violet <br> Pink (Rose) <br> Purple (Pourpre) |

- 10.1.6 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 action min. <br> 10 seconds |  |
| :--- | :--- | :--- |

- 10.1.7 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.

| Set maximum intensity after push during: | Not Used 500 ms <br> 1 second 2 seconds 5 seconds 10 seconds 30 seconds 1 minute 1 min . 30s 2 min . 10 min . 15 min . 30 min . 45 min 1 h 1 h 30 | Set maximum intensity after push, during | 500 ms | - |
| :---: | :---: | :---: | :---: | :---: |

10.1.8 Led behavior on Disable status

Determine the behaviour of leds when the commands receive disable telegram.


10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

- 10.1.8 Led behavior on Disable status (continued)

- 10.1.9 Use Alarm

A message can activate in red blinking the 4 leds.

Use alarm
No

No
Alarm is not usable, no accessible communication object.
Yes (makes available the alarm communication object)
When alarm object is active all the LED blinks and the instensity is set to $100 \%$

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 38 | Alarm | Alarm | 1.010 DP_Start (1 bit) | CW |

Alarm activation telegrams are sent via the group address linked with this object


| Parameters |  |
| :--- | :--- |
| 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. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

### 10.2 Channels configuration ( $1,2,3,4$ )

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


- 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 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2(9,16,23)$ | Channel 1 $(2,3,4)$ | Switching | 1.001 DP_Switch (1 bit) | CWT |  |
|  |  |  |  |  |  |
| Switching telegrams are sent via the group address linked with this object | CW |  |  |  |  |
| $3(10,17,24)$ | Channel $1(2,3,4)$ | Switching Status | 1.01 DP_Switch (1 bit) |  |  |
|  |  |  |  |  |  |


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

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

## SubFunction

Short/long

| Parameters |  |
| :--- | :--- |
| 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 |  |
| :--- | :--- |
| 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 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," 0 ") 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

| Release 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 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)

### 10.2.1.2 Shutter 1 -input

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $2(9,16,23)$ | Channel $1(2,3,4)$ | 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. |  |  |  |  |
| $8(15,22,29)$ | Channel $1(2,3,4)$ | 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. |  |  |  |  |
| $7(14,21,28)$ | Channel $1(2,3,4)$ | 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 function
Short push reaction
Long push reaction
Long push release


| Parameters | Setting |
| :---: | :---: |
| Short push reaction | No reaction <br> Cyclical Up / Down + stop <br> Up + stop <br> Down + stop <br> Cyclical Up / Down <br> Stop <br> Open slats <br> Close slats <br> Up <br> 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. <br> "No reaction": a short push does not change the object value and also does not send a telegram. <br> 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. <br> Up + stop : each short push transfers the following sequence command values into the communication object: Up, Stop, Up, Stop,,etc. <br> Down + stop : each short push transfers the following sequence command values into the communication object: Down, Stop, Down, Stop, etc. <br> Cyclical Up / Down: each short push transfers the following sequence command values into the communication object : Up, Down, Up, <br> Down,,etc. <br> Stop : a short push transfers into the communication object the stop command value (" 1 " or " 0 ") <br> Open slats: a short push transfers into the communication object the stop (open slats) command value ("0") <br> Close slats: a short push transfers into the communication object the stop (close slats) command value ("1") <br> Up: a short push transfers into the communication object the Up command (value " 0 ") <br> Down: a short push transfers into the communication object the Down command (value " 1 ") |  |
| Long push reaction | No reaction <br> Up <br> Down <br> Cyclical Up/Down <br> Stop <br> Cyclical Open/Close slats <br> Open slats <br> 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. <br> "No reaction": a long push does not change the object value and also does not send a telegram. <br> Up: a long push send the Up command (value " 0 ") <br> Down: a long push sends the Down command (value " 1 ") <br> Cyclical Up / Down: each long push sends the following sequence commands: Up, Down, Up, Down,,etc. <br> Stop : a long push sends the stop command (value " 1 " or " 0 ") <br> 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)

### 10.2.1.2 Shutter 1-input (continued)

| Parameters |  |
| :--- | :--- |
| 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- <br> button releated to the input after a long push. <br> "No reaction": a release does not change the object value and also does not lead to the sending of a telegram. <br> 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 |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) | 8-bits scene | 17.001 DP_SceneNumber <br> $(1$ Byte $)$ | CT |

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

```
8-bits scene control *
```

Scene num. on short push

| Parameters |  |
| :--- | :--- |
| Scene num. on short push | $0 . .64$ |
| This parameters determines which scene (1..64) has to be recalled on rising edge. <br> 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 |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 $(2,3,4)$ | Override 2bits | 2.001 DP_Switch_Control | (2 bits $)$ |



| Parameters |  |
| :--- | :--- |
| Short push reaction | $\begin{array}{l}\text { Priority High / On (lock On) } \\ \\ \\ \\ \hline\end{array}$ |
| Priority High / Off (lock Off) |  |
| Priority Low / On (Unlock On) |  |
| Priority Low / Off (Unlock Off) |  |$]$

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

### 10.2.1.4 Priority (continued)

| 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 |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) | Counting | 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. |  |  |  |  |
| $3(10,17,24)$ | Channel 1 (2,3,4) | Reset Counter |  |  |



| Parameters |  |  |  |
| :--- | :--- | :---: | :---: |
| Minimum value | $0 . .255,0$ |  |  |
| An adjustment is made via this parameter to define the minimum counter value. <br> 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 <br> 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. |  |  |  |

10.2.1.6 Dimming

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $2(9,16,23)$ | Channel $1(2,3,4)$ | Switching | 1.01 DP_Switch (1bit) | CWT |
| Switching telegrams are sent via the group address linked with this object. |  |  |  |  |
| $6(13,20,27)$ | Channel 1 ( $2,3,4$ ) | Dimming | 3.007 DP_Control_Dimming (4 bit) | CT |
| Dimming telegrams are sent via the group address linked with this object. |  |  |  |  |
| $7(14,21,28)$ | Channel $1(2,3,4)$ | Value Status | 5.001 DP_Scaling (1 Byte) | CW |
| Dimming status telegrams are received via the group address linked with this object. |  |  |  |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)



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

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) | Unsigned Value | 5.010 DP_Value_1_Ucount <br> $(1$ Byte $)$ | CT |



| 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 <br> 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. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

### 10.2.1.8 $2 \times 1$ unsigned byte

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) | Unsigned Value | 5.010 DP_Value_1_Ucount | (1 Byte) |



| 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 <br> pressing of the push button attached to the channel. |  |
| Byte value on short 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 <br> 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 |
| :---: | :---: | :---: | :---: | :---: |
| $2(9,16,23)$ | Channel $1(2,3,4)$ Action 1 | Switching | 1.01 DP_Switch (1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |
| 3 (10,17,24) | Channel $1(2,3,4)$ Action 1 | Switching Status | 1.01 DP_Switch (1 bit) | CW |
| Switching status are received via the group address linked with this object. |  |  |  |  |
| $42(44,46,48)$ | Channel $1(2,3,4)$ Action 2 | Switching | 1.01 DP_Switch (1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |


| Channel 1 function |
| :--- |
| Channel 1 Action 1 Type |
| Short push reaction |
| Long push reaction |
| Chalti Action |
| Short push reaction |
| Long push reaction |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

10.2.1.9 Multi action (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 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 |
| :---: | :---: | :---: | :---: | :---: |
| $2(9,16,23)$ | Channel 1 (2,3,4) 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. |  |  |  |  |
| $8(15,22,29)$ | Channel 1 (2,3,4) 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. |  |  |  |  |
| $7(14,21,28)$ | Channel 1 (2,3,4) 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. |  |  |  |  |
| $42(44,46,48)$ | Channel $1(2,3,4)$ 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. |  |  |  |  |
| $43(45,47,49)$ | Channel 1 (2,3,4) Action2 | 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. |  |  |  |  |



## 10. COMMUNICATION OBJECTS DESCRIPTION (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 writt pressing the push button related to the channel. <br> "No reaction": action does not change the object value and also does not sen Cyclical Up / Down + stop : each short push transfers the following sequen Up, Stop, Down, Stop,etc. <br> Up + stop : each short push transfers the following sequence command va Down + stop : each short push transfers the following sequence command Cyclical Up / Down: each short push transfers the following sequence com Stop : a short push transfers into the communication object the stop comm Open slats: a short push transfers into the communication object the stop Close slats: a short push transfers into the communication object the stop Up: a short push transfers into the communication object the Up comman Down: a short push transfers into the communication object the Down com | into the storage cell of the communication object and sent after short <br> end a telegram. <br> ce command values into the communication object: Up, Stop, Down, Stop, <br> lues into the communication object: Up, Stop, Up, Stop,,etc. values into the communication object: Down, Stop, Down, Stop,,etc. mand values into the communication object : Up, Down, Up, Down,,etc. mand value (" 1 " or " 0 ") <br> (open slats) command value (" 0 ") <br> (close slats) command value (" 1 ") <br> (value " 0 ") <br> mmand (value" 1 ") |
| Long push reaction | No reaction <br> Up <br> Down <br> Cyclical Up/Down <br> Stop <br> Cyclical Open/Close slats <br> Open slats <br> 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 a long press release of <br> the push button related to the Channel. <br> "No reaction": action does not change the object value and also does not send a telegram. <br> Stop : the stop command (value "1" or " 0 ") is transferred into the communication object and sent. |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (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 |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) 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. |  |  |  |  |
| $42(44,46,48)$ | Channel 1 (2,3,4) Action 2 | 8-bits scene | 17.001 DP_SceneNumber <br> (1 Byte) | CT |



| Parameters |  |
| :--- | :--- |
| Scene num. on short push (0:none) | $0 . .64$ |
| This parameters determines which scene (1..64) has to be recalled on rising edge. <br> If value " 0 " is set, no scene is going to be recalled |  |

## 1x1 unsigned byte :

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) Action 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 |  |  |  |  |
| $42(44,46,48)$ | Channel 1 (2,3,4) Action 2 | Unsigned Value | 5.010 DP_Value_1_Ucount <br> (1 Byte) | CT |

Channel 1 function

Send on ...

Byte value on short push (0-255)


| 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 <br> 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)

## 2x1 unsigned byte :

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) Action 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 |  |  |  |  |
| $42(44,46,48)$ | Channel 1 (2,3,4) Action 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 |  |  |  |  |



| 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 <br> 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 <br> 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 |
| :---: | :---: | :---: | :---: | :---: |
| $2(9,16,23)$ | Channel $1(2,3,4)$ Mode 1 | Switching | 1.01 DP_Switch (1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |
| 3 (10,17,24) | Channel $1(2,3,4)$ 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". |  |  |  |  |
| $42(44,46,48)$ | Channel $1(2,3,4)$ Mode 2 | Switching | 1.01 DP_Switch (1 bit) | CWT |


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

## 10. COMMUNICATION OBJECTS DESCRIPTION (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 |
| :---: | :---: | :---: | :---: | :---: |
| $2(9,16,23)$ | Channel $1(2,3,4)$ Mode 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. |  |  |  |  |
| $8(15,22,29)$ | Channel 1 (2,3,4) Mode 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. |  |  |  |  |
| $7(14,21,28)$ | Channel $1(2,3,4)$ Mode 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. |  |  |  |  |
| $42(44,46,48)$ | Channel 1 (2,3,4) Mode 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. |  |  |  |  |
| $43(45,47,49)$ | Channel 1 (2,3,4) Mode 2 | 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. |  |  |  |  |


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

## 10. COMMUNICATION OBJECTS DESCRIPTION (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. <br> "No reaction": action does not change the object value and also does not send a telegram. <br> 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. <br> 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 ") <br> 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 ") <br> Down: a short push transfers into the communication object the Down command (value" 1 ") |  |
| Long push reaction | No reaction Up <br> Down <br> Cyclical Up/Down <br> Stop <br> Cyclical Open/Close slats <br> Open slats <br> 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 <br> on the push button related to the Channel. <br> "No reaction": action does not change the object value and also does not send a telegram. <br> Stop : the stop command (value " 1 " or " " 0 ") is transferred into the communication object and sent |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (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 |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) Action 1 | 8-bits scene | 17.001 DP_SceneNumber <br> $(1$ Byte $)$ | CT |



Mode 1

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

Mode 2

| Parameters |  |
| :--- | :--- |
| 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 <br> If value " 0 " is set, no scene is going to be recalled |  |

Dimming :

| No. | Object name | Function | DP | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $2(9,16,23)$ | Channel 1 (2,3,4) Mode 1 | Switching | 1.01 DP_Switch ( 1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object. |  |  |  |  |
| $7(14,21,28)$ | Channel $1(2,3,4)$ Mode 1 | 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. |  |  |  |  |
| 42 (44,46,48 | Channel 1 (2,3,4) Mode 2 | Switching | 1.01 DP_Switch ( 1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object. |  |  |  |  |
| $6(13,20,27)$ | Channel 1 (2,3,4) Mode 1 | Dimming | 3.007 DP_Control_Dimming ( 4 bit) | CT |
| The dimming telegrams are sent to the dimming actuator via the group address linked with this object. |  |  |  |  |
| 43 (45,47,49) | Channel 1 (2,3,4) Mode 2 | Dimming | 3.007 DP_Control_Dimming <br> ( 4 bit) | CT |
| The dimming telegrams are sent to the dimming actuator via the group address linked with this object. |  |  |  |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

## Dimming (continued): <br> Channel 1 function <br> Channel 1 Action Type <br> Switching value on short push <br> Dimming value on long push <br> Dimming value on release push



| Parameters |  |
| :--- | :--- |
| 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

| $\operatorname{Dim}+/-$ |
| :--- |
| $\operatorname{Dim}+$ |
| $\operatorname{Dim}-$ |
| 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 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 |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) 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 | 5.010 DP_Value_1_Ucount <br> (1 Byte) | CT |  |  |
| $42(44,46,48)$ | Channel 1 (2,3,4) Mode 2 | Unsigned Value |  |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

## 1x1 unsigned byte (continued):

| Channel 1 function |
| :--- |
| Channel 1 Action Type |
| -- Mode 1 -- |
| Send on ... |
| Byte value on short push (0-255) |
| -- Mode 2 -- |
| Send on ... |
| Byte value on short push $(0-255)$ |

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 <br> 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 ", <br> 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 <br> 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 " $1 "$, <br> when the mode 2 is active. |  |

## 2x1 unsigned byte :

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| $5(12,19,26)$ | Channel 1 (2,3,4) 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 |  |  |  |  |
| $42(44,46,48)$ | Channel 1 (2,3,4) 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)

## $2 \times 1$ unsigned byte (continued):

..... Channel 1 -...-
Channel 1 function
Channel 1 Action Type
-- Mode 1 --
Byte value on short push (0-255)

Byte value on long push (0-255)
-- Mode 2 --
Byte value on short push (0-255)

Byte value on long push ( $0-255$ )


1

7

3

5


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 <br> 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 <br> the push button related to the channel, when the mode 1 is active. |  |

Mode 2

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

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 |
| :---: | :---: | :---: | :---: | :---: |
| $4(11,18,25)$ | Channel 1 $(2,3,4)$ | 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 channel.
They are only visible if "Add Enable object" parameter value is set to "yes".

Add enable object

10.2.1.12 Invert context information logic

Invert context information logic
No

| Invert context information logic | Yes / No |
| :--- | :--- |
| This parameter determines the type of logic of context information. |  |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

- 10.2.2 Use Jointly
10.2.2.1 Switching

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 2 (16) | Channel 1-2 (3-4) | Switching | 1.01 DP_Switch ( 1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |
| 3 (17) | Channel 1-2 (3-4) | Switching Status | 1.01 DP_Switch ( 1 bit) | CW |
| Switching status are received via the group address linked with this object. |  |  |  |  |
| 4 (18) | Channel 1-2 (3-4) | 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 Disable object" parameter value is set to yes.


| Parameters | Setting |
| :--- | :--- |
| 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 | 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)

10.2.2.2 Dimming

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 2 (16) | Channel 1-2 (3-4) | Switching | 1.01 DP_Switch ( 1 bit) | CWT |
| Switching telegrams are sent via the group address linked with this object |  |  |  |  |
| 6 (20) | Channel 1-2 (3-4) | Dimming | 3.007 DP_Control_Dimming $(4 \mathrm{bit})$ | CT |
| Dimming telegrams are sent via the group address linked with this object |  |  |  |  |
| 7 (21) | Channel 1-2 (3-4) | 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 (18) | Channel 1-2 (3-4) | 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. <br> They are only visible if "Add Enable object" parameter value is set to "yes". |  |  |  |  |


| Channel 1-2 function |
| :--- |
| Channel 1 - Switching value on short push |
| Channel 1 - Switching value on long push |
| Channel 1 - Dimming value on long push |
| Channel 1 - Dimming value on release push |
| Channel 2 - Switching value on short push |
| Channel 2 - Switching value on long push |
| Channel 2 - Dimming value on long push |
| Channel 2 - Dimming value on release push |


| Parameters | Setting |
| :--- | :--- |
| Channel X - 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 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 | $\operatorname{Dim}+/-$ |
| :--- | :--- |
|  | $\operatorname{Dim}+$ |
|  | $\operatorname{Dim}-$ |
|  | 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.

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

### 10.2.2.2 Dimming (continued)

| $\quad$ Parameters |  |
| :--- | :--- | :--- |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

### 10.2.2.3 Shutter 2-input

| No. | Object name | Function | Size | Flags |
| :---: | :---: | :---: | :---: | :---: |
| 2 (16) | Channel 1-2 (3-4) | 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. |  |  |  |  |
| 8 (22) | Channel 1-2 (3-4) | 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. |  |  |  |  |
| 7 (21) | Channel 1-2 (3-4) | 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. |  |  |  |  |
| 4 (18) | Channel 1-2 (3-4) | 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. <br> They are only visible if "Add Enable object " parameter value is set to yes. |  |  |  |  |


| Channel 1-2 function |
| :--- |
| Channel 1 - Short push reaction |
| Channel 1 - Long push reaction |
| Channel 1 - Long push release 2-inputs |
| Channel 2 - Short push reaction |
| Channel 2 - Long push reaction |
| Channel 2 - Long push release |
| Add reaction |

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

10.2.2.3 Shutter 2-input (continued)


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")
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 ")

| 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)

10.2.2.3 Shutter 2-input (continued)


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 ")
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 ")

\section*{| 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.

## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

### 10.3 LEDs configuration



Use led X


| Use led $\mathbf{X}$ |  |
| :---: | :---: |
| The parameter determines if the led X is used or not (it depend if the rockers has light diffuser). | Yes / No |

## Mode1

ON status

| Led color |  |
| :---: | :---: |
| The parameter determines the color of led X for ON status in Mode 1 |  |
| Led behaviour | Off <br> On <br> Slow blink <br> Fast blink <br> Soft blink <br> Flash 1 <br> Flash 2 <br> Flash 3 <br> Pulse |

10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

Mode1 (continued)
OFF status

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

Mode2
ON status

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

10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

Mode2 (continued)
OFF status

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

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, 1x1 unsigned byte, $2 x 1$ unsigned byte or if context information are active.



## 10. COMMUNICATION OBJECTS DESCRIPTION (CONTINUED)

### 10.5 LED intensity update flowchart

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



Nota : when in programming mode (RED and fixed leds) there are 30 min before timing out.

