

**12 S2 On-off-toggle/Dim/Shu/Display 222001****Devices Employing the Program**

|                 |  |
|-----------------|--|
| Product family: | Push button  |
| Product type:   | Push button, 2-fold                                  |
| Manufacturer:   | Siemens  |
| Name:           | Push button UP 222E<br>electro white / i-system      |
| Order-no.:      | 5WG1 222-2EB01                                       |
| Name:           | Push button UP 222E<br>titanium white / i-system     |
| Order-no.:      | 5WG1 222-2EB11                                       |
| Name:           | Push button UP 222E<br>carbon metallic / i-system    |
| Order-no.:      | 5WG1 222-2EB21                                       |
| Name:           | Push button UP 222E<br>aluminium metallic / i-system |
| Order-no.:      | 5WG1 222-2EB31                                       |

**Application Description**

The application program "12 S2 On-Off-Toggle/Dim/Shu/Display 222001" provides parameters to realizing switching, dimming, blinds control, and status display via LEDs with the push button 2-fold.

The operating modes to the rockers can be selected with the parameter "Function of upper rocker" and "Function of lower rocker". According to the mode selected, the "Upper rocker" and "Lower rocker" parameter windows display appropriate parameters in their default setting. Furthermore, the type of the objects corresponding to the rockers changes automatically (upper rocker: object [1], lower rocker: object [3]) when switching e.g. from switching mode (1 bit) to dimming mode (4 bit).

**Rocker:**

The various modes can be selected individually to each rocker by setting the parameters "Upper rocker: Function of upper rocker" and "Lower rocker: Function of lower rocker" accordingly:

**Switching:**

Upon operating the rocker an appropriate telegram is sent (On/Off/Toggle).

**Blinds Control:**

The application program distinguishes between long and short switch operations. On a long operation of the rocker a telegram is sent to raising (up) or lowering (down) the blinds. On a short operation a telegram is sent to adjusting the louvres or halting the blinds if moving up or down.

**Dim by stop telegrams:**

The application program distinguishes between long and short switch operations. A short switch operation sends a switching telegram (e.g. left rocker contact: "On", right rocker contact: "Off"). When operating the rocker to a

longer period of time (threshold can be adjusted in the parameter list), a dimming telegram (left rocker contact: "Darker", right rocker contact: "Darker") is sent. On releasing the rocker, a stop telegram is sent.

**Dim by cyclic sending:**

The application program distinguishes between long and short switch operations. A short switch operation sends a switching telegram (e.g. left rocker contact: "On", right rocker contact: "Off"), a long switch operation sends dimming telegrams (left rocker contact: "Darker", right rocker contact: "Darker") with the frequency specified in the parameter list until the rocker is released.

**LED display**

The two LEDs situated left beside the two right rocker contacts can be set to display actual object status or to use as orientation lights. The centre LED between the two rockers can be permanently disabled or used as orientation light.

**Communication Objects (Switch)**

| Nummer | Name                | Funktion | Länge |
|--------|---------------------|----------|-------|
| 10     | Switch upper rocker | On       | 1 bit |
| 11     | Switch upper rocker | Off      | 1 bit |
| 12     | Switch lower rocker | On       | 1 bit |
| 13     | Switch lower rocker | off      | 1 bit |

**Note:**

The order of the entries may vary from the above due to individual customization of the table.

| Obj | Function            | Object name         | Type  | Flags |
|-----|---------------------|---------------------|-------|-------|
| 0   | On<br>Off<br>Toggle | Switch upper rocker | 1-Bit | CUWT  |
| 1   | On<br>Off<br>Toggle | Switch upper rocker | 1-Bit | CUWT  |
| 2   | On<br>Off<br>Toggle | Switch lower rocker | 1-Bit | CUWT  |
| 3   | On<br>Off<br>Toggle | Switch lower rocker | 1-Bit | CUWT  |

This is the switching object of the left rocker contact of the upper rocker. According to the parameter settings (see parameter: "Left contact") "On" or "Off" telegrams are sent. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.

This is the switching object the right rocker contact of the upper rocker. According to the parameter settings (see parameter: "Right contact") "On" or "Off" telegrams are sent. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.

This is the switching object of the left rocker contact of the lower rocker. According to the parameter settings (see parameter: "Left contact") "On" or "Off" telegrams are sent. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.

This is the switching object of the right rocker contact of the lower rocker. According to the parameter settings (see parameter: "Right contact") "On" or "Off" telegrams are sent. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.

## Application Programs Description

July 2005

## 12 S2 On-off-toggle/Dim/Shu/Display 222001

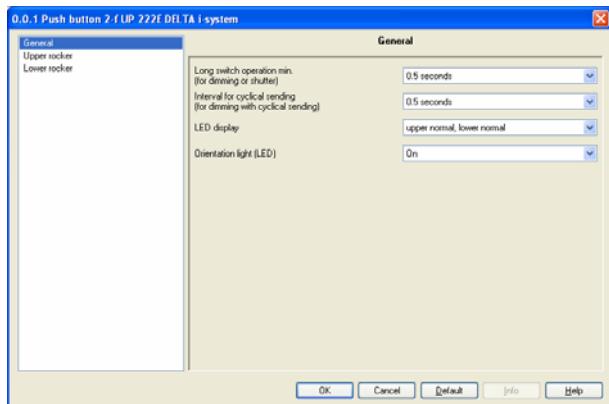
| Obj | Function            | Object name         | Type  | Flags |
|-----|---------------------|---------------------|-------|-------|
| 3   | On<br>Off<br>Toggle | Switch lower rocker | 1-Bit | CUWT  |

This is the switching object of the right rocker contact of the lower rocker. According to the parameter settings (see parameter: "Right contact") "On" or "Off" telegrams are sent. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.

Maximum number of group addresses: 13  
 Maximum number of assignments: 13

## Parameters

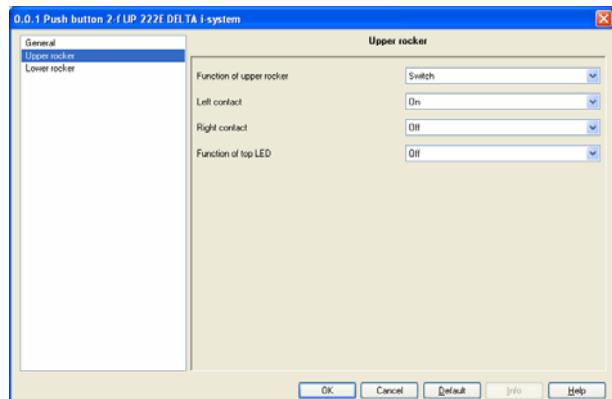
## General:



| Parameters   | Settings   |
|--|--|
| Long switch operation min.<br>(for dimming or shutter control)   | 0.3; 0.4; 0.5; 0.6; 0.8; 1.0; 1.2; 1.5; 2.0; 2.5; 3.0; 4.0; 5.0; 6.0; 7.0 seconds  |
| This parameter defines the operating period to generate long and short switch operations. Operating the rocker longer than the selected period produces a long switch operation. |  |
| Interval for cyclical sending<br>(for dimming with cyclical sending)   | 0.3; 0.4; 0.5; 0.6; 0.8; 1.0; 1.2; 1.5; 2.0; 2.5; 3.0; 4.0; 5.0; 6.0; 7.0 seconds  |
| This parameter governs the frequency to cyclic sending on a long switch operation. Consider busload when setting the cyclic send frequency.                                      |  |
| LED display  | upper: normal, lower: normal<br>upper: inverted, lower: inverted<br>upper: normal, lower: inverted<br>upper: inverted, lower: normal |
| This parameter defines how the two LEDs (beside the right rocker contacts) will display object status.   |  |
| Orientation light (LED)  | enabled<br>disabled  |
| This parameter governs whether the central LED is disabled or used as an orientation light.  |  |

## Parameters (Switch)

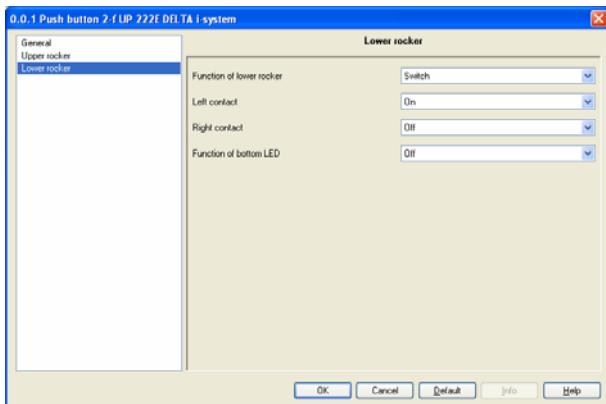
## Upper rocker:



| Parameters   | Settings   |
|--|--|
| Function of upper rocker   | Switch<br>Shutter<br>Dim. with stop telegram<br>Dim. with cyclical sending   |
| This parameter governs the operating mode to the upper rocker. According to the mode selected, the "Upper rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [1] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below:<br>Switching (object type: 1 bit)<br>Shutter (object type: 1 bit)<br>Dimming by stop telegram (object type: 4 bit)<br>Dimming by cyclic sending (object type: 4 bit) |  |
| Left contact   | On<br>Off<br>Toggle  |
| This parameter governs whether an "On" or "Off" telegram is sent via object [0] on operating the left rocker contact of the upper rocker. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.   |  |
| Right contact  | On<br>Off<br>Toggle  |
| This parameter governs whether an "On" or "Off" telegram is sent via object [0] on operating the left rocker contact of the upper rocker. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.   |  |
| Function of top LED  | Off<br>On<br>Status of upper rocker object [0]<br>Status of upper rocker object [1]<br>Status of lower rocker obj. [2] |
| The LED left beside the upper right rocker contact can be set to display the status of an object (either object [0], object [1], or object [2]) or to use as an orientation light.   |  |

## 12 S2 On-off-toggle/Dim/Shu/Display 222001

### Lower rocker:



| Parameters   | Settings   |
|--|--|
| <b>Function of lower rocker</b>  | <b>Switch</b><br>Shutter<br>Dim. with stop telegram<br>Dim. with cyclical sending  |
| This parameter governs the operating mode to the lower rocker. According to the mode selected, the "Lower rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [3] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below:<br>Switching (object type: 1 bit)<br>Shutter (object type: 1 bit)<br>Dimming by stop telegram (object type: 4 bit)<br>Dimming by cyclic sending (object type: 4 bit) |  |
| <b>Left contact</b>  | <b>On</b><br>Off<br>Toggle   |
| This parameter governs whether an "On" or "Off" telegram is sent via object [0] on operating the left rocker contact of the lower rocker. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.   |  |
| <b>Right contact</b>   | <b>On</b><br>Off<br>Toggle   |
| This parameter governs whether an "On" or "Off" telegram is sent via object [0] on operating the right rocker contact of the lower rocker. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.  |  |
| <b>Function of bottom LED</b>  | <b>Off</b><br>On<br>Status of right rocker obj. [2]<br>Status of right rocker obj. [3]<br>Status of left rocker object [0] |
| The LED beside the lower right rocker can be set to display the status of an object (either object [2], object [3], or object [0]) or to use as an orientation light.  |  |

### Communication Objects (Shutter)

| Nummer | Name                 | Funktion      | Länge |
|--------|----------------------|---------------|-------|
| 0      | Louvres upper rocker | Open / Closed | 1 bit |
| 1      | Shutter upper rocker | Up / Down     | 1 bit |
| 2      | Louvres lower rocker | Open / Closed | 1 bit |
| 3      | Shutter lower rocker | Up / Down     | 1 bit |

### Note:

The order of the entries may vary from the above due to individual customization of the table.

| Obj | Function  | Object name          | Type   | Flags |
|-----|---|----------------------|--------|-------|
| 0   | Open/Close  | Louvres upper rocker | 1-Bit  | CUWT  |
|     | This is the switching object to adjusting louvres on a short switch operation: When using the default setting (see parameter window "Upper rocker: Left/Right contact"), a operation of the left rocker contact opens the louvres by one step with an "Off" telegram and a operation of the right rocker contact closes the louvres by one step with an "On" telegram   |                      |        |       |
| 1   | Up/Down   | Shutter upper rocker | 1- Bit | CUWT  |
|     | This is the switching object to raising (up) and lowering (down) the blinds on a long switch operation: When using the default setting (see parameter window "Upper rocker: Left/Right contact"), a operation of the left rocker contact raises (up) the blinds with an "Off" telegram and a operation of the right rocker contact lowers (down) the blinds with an "On" telegram. A short switch operation halts a moving blind. |                      |        |       |
| 2   | Open/Close  | Louvres lower rocker | 1- Bit | CUWT  |
|     | This is the switching object to adjusting louvres on a short switch operation: When using the default setting (see parameter window "Lower rocker: Left/Right contact"), a operation of the left rocker contact opens the louvres by one step with an "Off" telegram and a operation of the right rocker contact closes the louvres by one step with an "On" telegram   |                      |        |       |
| 3   | Up/Down   | Shutter lower rocker | 1- Bit | CUWT  |
|     | This is the switching object to raising (up) and lowering (down) the blinds on a long switch operation: When using the default setting (see parameter window "Lower rocker: Left/Right contact"), a operation of the left rocker contact raises (up) the blinds with an "Off" telegram and a operation of the right rocker contact lowers (down) the blinds with an "On" telegram. A short switch operation halts a moving blind. |                      |        |       |

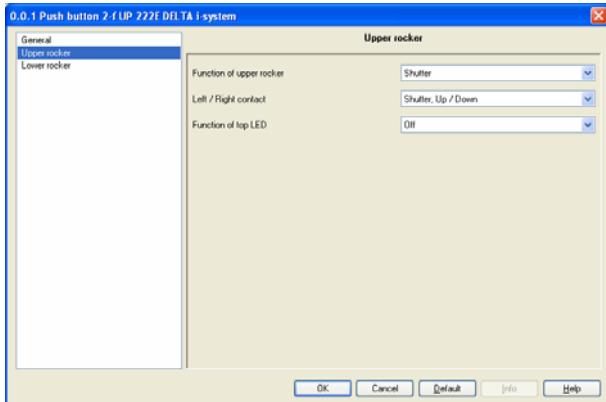
Maximum number of group addresses: 13

Maximum number of assignments: 13

## 12 S2 On-off-toggle/Dim/Shu/Display 222001

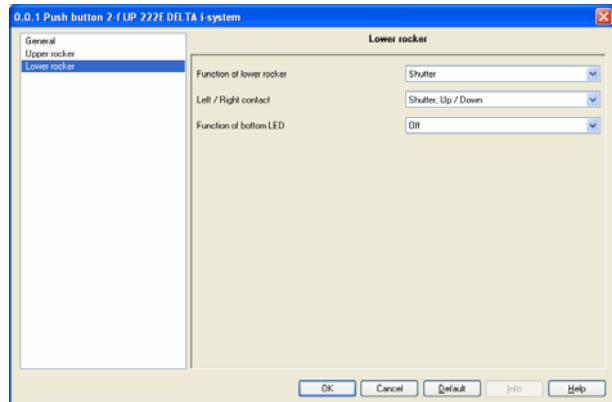
## Parameters (Shutter)

## Upper rocker:



| Parameters  | Settings   |
|---|--|
| <b>Function of upper rocker</b>   | Switch<br><b>Shutter</b><br>Dim. with stop telegram<br>Dim. with cyclical sending                                      |
| This parameter governs the operating mode to the upper rocker. According to the mode selected, the "Upper rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [1] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below:<br>Switching (object type: 1 bit)<br>Shutter (object type: 1 bit)<br>Dimming by stop telegram (object type: 4 bit)<br>Dimming by cyclic sending (object type: 4 bit)  |  |
| <b>Left / Right contact</b>   | <b>Shutter, Up/Down</b><br>Shutter, Down/Up  |
| This parameter defines the operating mode to the left rocker contact and the right rocker contact of the upper rocker. When using the default setting, a short operation of the left rocker contact opens the louvres by one step with an "Off" telegram and a short operation of the right rocker contact closes the louvres by one step with an "On" telegram. A long operation of the left rocker contact raises (up) the blinds with an "Off" telegram and a long operation of the right rocker contact lowers (down) the blinds with an "On" telegram. |  |
| <b>Function of top LED</b>  | Off<br>On<br>Status of upper rocker object [0]<br>Status of upper rocker object [1]<br>Status of lower rocker obj. [2] |
| The LED left beside the upper right rocker contact can be set to display the status of an object (either object [0], object [1], or object [2]) or to use as an orientation light.  |  |

## Lower rocker:



| Parameters  | Settings   |
|---|--|
| <b>Function of lower rocker</b>   | Switch<br><b>Shutter</b><br>Dim. with stop telegram<br>Dim. with cyclical sending                                |
| This parameter governs the operating mode to the lower rocker. According to the mode selected, the "lower rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [3] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below:<br>Switching (object type: 1 bit)<br>Shutter (object type: 1 bit)<br>Dimming by stop telegram (object type: 4 bit)<br>Dimming by cyclic sending (object type: 4 bit)  |  |
| <b>Left / Right contact</b>   | <b>Shutter, Up/Down</b><br>Shutter, Down/Up  |
| This parameter defines the operating mode to the left rocker contact and the right rocker contact of the lower rocker. When using the default setting, a short operation of the left rocker contact opens the louvres by one step with an "Off" telegram and a short operation of the right rocker contact closes the louvres by one step with an "On" telegram. A long operation of the left rocker contact raises (up) the blinds with an "Off" telegram and a long operation of the right rocker contact lowers (down) the blinds with an "On" telegram. |  |
| <b>Function of bottom LED</b>   | Off<br>On<br>Status of right rocker obj. [2]<br>Status of right rocker obj. [3]<br>Status of left rocker obj [0] |
| The LED left beside the lower right rocker contact can be set to display the status of an object (either object [2], object [3], or object [0]) or to use as an orientation light.  |  |

## 12 S2 On-off-toggle/Dim/Shu/Display 222001

### Communication Objects (Dimming with stop telegram)

| Nummer | Name                          | Funktion          | Länge |
|--------|-------------------------------|-------------------|-------|
| 0      | Dimming On / Off upper rocker | On / Off          | 1 bit |
| 1      | Dimming upper rocker          | Brighter / Darker | 4 bit |
| 2      | Dimming On / Off lower rocker | On / Off          | 1 bit |
| 3      | Dimming lower rocker          | Brighter / Darker | 4 bit |

#### Note:

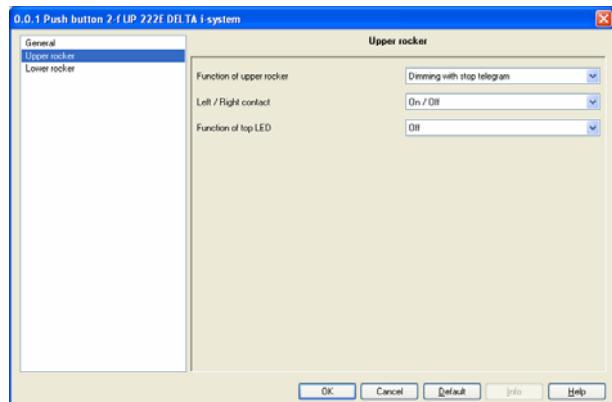
The order of the entries may vary from the above due to individual customization of the table.

| Obj | Function          | Object name   | Type  | Flags |  |
|-----|-------------------|---|-------|-------|--|
| 0   | On/Off            | Dimming On/Off upper rocker   | 1-Bit | CUWT  |  |
|     |                   | This is the switching object of the upper rocker to short switch operations: When using the default setting (see parameter window "Upper rocker Left/Right contact"), a operation of the left rocker contact sends an "On" telegram and a operation of the right rocker contact sends an "Off" telegram. When set to "Toggle/ Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status. |       |       |  |
| 1   | Brighter/darker   | Dimming upper rocker  | 4-Bit | CUWT  |  |
|     |                   | This is the switching object of the upper rocker switch to sending a dimming telegram on a long switch operation: a operation of the left rocker contact sends a "Darker" telegram and a operation of the right rocker contact sends a "Darker" telegram. On releasing the rocker the "stop" telegram is sent.  |       |       |  |
| 2   | On/Off            | Dimming On/Off lower rocker   | 1-Bit | CUWT  |  |
|     |                   | This is the switching object of the lower rocker to short switch operations: When using the default setting (see parameter window "Lower rocker Left/Right contact"), a operation of the left rocker contact sends an "On" telegram and a operation of the right rocker contact sends an "Off" telegram. When set to "Toggle/ Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status. |       |       |  |
| 3   | Brighter / Darker | Dimming lower rocker  | 4-Bit | CUWT  |  |
|     |                   | This is the switching object of the lower rocker switch to sending a dimming telegram on a long switch operation: a operation of the left rocker contact sends a "Darker" telegram and a operation of the right rocker contact sends a "Darker" telegram. On releasing the rocker the "Stop" telegram is sent.  |       |       |  |

Maximum number of group addresses: 13  
 Maximum number of assignments: 13

### Parameters (Dimming with stop telegram)

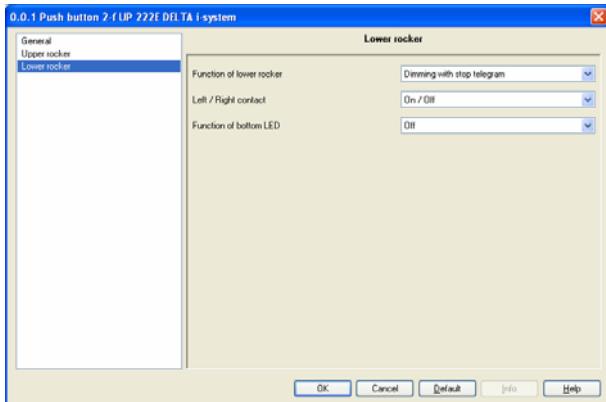
#### Upper rocker:



| Parameters               | Settings   |
|--------------------------|--|
| Function of upper rocker | Switch<br>Shutter<br><b>Dim. with stop telegram</b><br>Dim. with cyclical sending  |
|                          | This parameter governs the operating mode of the upper rocker. According to the mode selected, the "Upper rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [1] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below:<br>Switching (object type: 1 bit)<br>Shutter (object type: 1 bit)<br>Dimming by stop telegram (object type: 4 bit)<br>Dimming by cyclic sending (object type: 4 bit)   |
| Left / Right contact     | Toggle/Toggle<br><b>On/Off</b>   |
|                          | This parameter defines the operating mode to the left rocker contact and the right rocker contact of the upper rocker. When using the default setting a short operation of the left rocker contact sends an "On" telegram and a short operation of the right rocker contact sends an "Off" telegram.<br>A long operation (see parameter "Long switch operation min.") of the left rocker contact sends a "Darker" telegram and a long operation of the right rocker contact sends a "Darker" telegram. On releasing the rocker the "Stop" telegram is sent. When set to "Toggle/Toggle", a telegram is sent ("On" or "Off") on a short switch operation appropriate to change the actual signal status. Like the "On/Off" mode, this does not affect any dimming operations. |
| Function of top LED      | <b>Off</b><br>On<br>Status of upper rocker object [0]<br>Status of lower rocker obj. [2]   |
|                          | The LED left beside the upper right rocker contact can be set to display the status of an object (object [0] or object [2]) or to use as orientation lights.   |

## 12 S2 On-off-toggle/Dim/Shu/Display 222001

## Lower rocker:



| Parameters   | Settings   |
|--|--|
| <b>Function of lower rocker</b>  | Switch<br>Shutter<br><b>Dim. with stop telegram</b><br>Dim. with cyclical sending      |
| This parameter governs the operating mode of the lower rocker. According to the mode selected, the "Lower rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [3] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below:<br>Switching (object type: 1 bit)<br>Shutter (object type: 1 bit)<br>Dimming by stop telegram (object type: 4 bit)<br>Dimming by cyclic sending (object type: 4 bit)   |  |
| <b>Left / right contact</b>  | Toggle/Toggle<br><b>On/Off</b>   |
| This parameter defines the operating mode to the left rocker contact and the right rocker contact of the lower rocker. When using the default setting a short operation of the left rocker contact sends an "On" telegram and a short operation of the right rocker contact sends an "Off" telegram.<br>A long operation (see parameter "Long switch operation min.") of the left rocker contact sends a "Darker" telegram and a long operation of the right rocker contact sends a "Darker" telegram. On releasing the rocker the "Stop" telegram is sent. When set to "Toggle/Toggle", a telegram is sent ("On" or "Off") on a short switch operation appropriate to change the actual signal status. Like the "On/Off" mode, this does not affect any dimming operations. |  |
| <b>Function of bottom LED</b>  | <b>Off</b><br>On<br>Status of lower rocker obj. [2]<br>Status of upper rocker obj. [0] |
| The LED left beside the right lower rocker contact can be set to display the status of an object (object [0] or object [2]) or to use as orientation lights.   |  |

## Communication Objects (Dim. with cyclical sending)

| Nummer | Name                          | Funktion          | Länge |
|--------|-------------------------------|-------------------|-------|
| 0      | Dimming On / Off upper rocker | On / Off          | 1 bit |
| 1      | Dimming upper rocker          | Brighter / Darker | 4 bit |
| 2      | Dimming On / Off lower rocker | On / Off          | 1 bit |
| 3      | Dimming lower rocker          | Brighter / Darker | 4 bit |

## Note:

The order of the entries may vary from the above due to individual customization of the table.

| Obj | Function | Object name                 | Type  | Flags |
|-----|----------|-----------------------------|-------|-------|
| 0   | On/Off   | Dimming On/Off upper rocker | 1-Bit | CUWT  |

This is the switching object of the upper rocker to short switch operations: When using the default setting (see parameter window "Upper rocker Left/Right contact"), a operation of the left rocker contact sends an "On" telegram and a operation of the right rocker contact sends an "Off" telegram. When set to "Toggle/ Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.

|   |                 |                      |       |      |
|---|-----------------|----------------------|-------|------|
| 1 | Brighter/Darker | Dimming upper rocker | 4-Bit | CUWT |
|---|-----------------|----------------------|-------|------|

This is the switching object of the upper rocker to sending a dimming telegram on a long switch operation: a operation of the left rocker contact repeatedly sends a "Darker" telegram and a operation of the right rocker contact sends a "Darker" telegram with the frequency specified in the parameter "Interval for cyclical sending".

|   |        |                             |       |      |
|---|--------|-----------------------------|-------|------|
| 2 | On/Off | Dimming On/Off lower rocker | 1-Bit | CUWT |
|---|--------|-----------------------------|-------|------|

This is the switching object of the lower rocker to short switch operations: When using the default setting (see parameter window "Right rocker Upper/Lower contact"), a operation of the left rocker contact sends an "On" telegram and a operation of the right rocker contact sends an "Off" telegram. When set to "Toggle/ Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.

|   |                   |                      |       |      |
|---|-------------------|----------------------|-------|------|
| 3 | Brighter / Darker | Dimming lower rocker | 4-Bit | CUWT |
|---|-------------------|----------------------|-------|------|

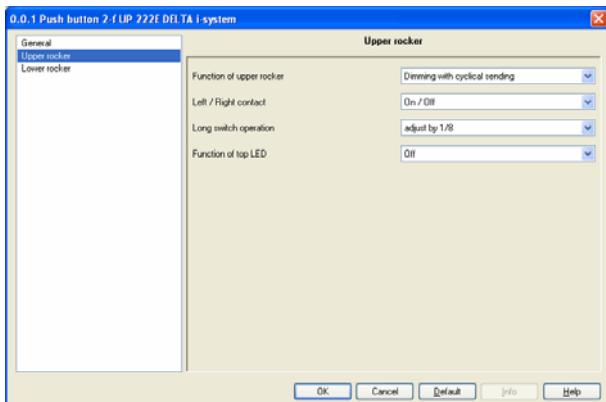
This is the switching object of the lower rocker to sending a dimming telegram on a long switch operation: a operation of the left rocker contact repeatedly sends a "Darker" telegram and a operation of the right rocker contact sends a "Darker" telegram with the frequency specified in the parameter "Interval for cyclical sending".

Maximum number of group addresses: 13  
Maximum number of assignments: 13

## 12 S2 On-off-toggle/Dim/Shu/Display 222001

### Parameters (Dim. with cyclical sending)

#### Upper rocker:



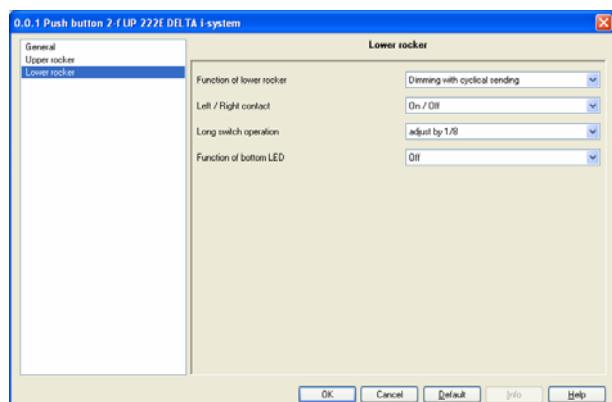
| Parameters  | Settings   |
|---|--|
| <b>Long switch operation</b>  | adjust by 100%<br>adjust by 1/2<br>adjust by 1/4<br><b>adjust by 1/8</b><br>adjust by 1/16<br>adjust by 1/32<br>adjust by 1/64 |
| This parameter defines the change in light intensity a dimming telegram is to establish on a long switch operation. When set to e.g. "adjust by 1/8", 8 dimming telegrams are required to change the light intensity from 0% to 100%. |  |

**Function of top LED**

|                                   |
|-----------------------------------|
| Off                               |
| On                                |
| Status of upper rocker object [0] |
| Status of lower rocker obj. [2]   |

The LED left beside the upper right rocker contact can be set to display the status of an object (object [0] or object [2]) or to use as orientation lights.

#### Lower rocker:



| Parameters   | Settings  |
|--|---|
| <b>Function of lower rocker</b>  | Switch<br>Shutter<br>Dim. with stop telegram<br><b>Dim. with cyclical sending</b> |
| This parameter governs the operating mode of the lower rocker. According to the mode selected, the "Lower rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [1] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below:<br>Switching (object type: 1 bit)<br>Shutter (object type: 1 bit)<br>Dimming by stop telegram (object type: 4 bit)<br>Dimming by cyclic sending (object type: 4 bit) |   |

| Parameters  | Settings  |
|---|---|
| <b>Function of upper rocker</b>   | Switch<br>Shutter<br>Dim. with stop telegram<br><b>Dim. with cyclical sending</b> |
| This parameter governs the operating mode of the upper rocker. According to the mode selected, the "Upper rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [1] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below:<br>Switching (object type: 1 bit)<br>Shutter (object type: 1 bit)<br>Dimming by stop telegram (object type: 4 bit)<br>Dimming by cyclic sending (object type: 4 bit)  |   |
| <b>Left / Right contact</b>   | Toggle/Toggle<br>On/Off   |
| This parameter defines the operating mode to the left rocker contact and the right rocker contact of the upper rocker. When using the default setting, a short operation of left rocker contact sends an "On" telegram and a short operation of the right rocker contact sends an "Off" telegram.<br>A long operation (see parameter "Long switch operation min.") of the left rocker contact repeatedly sends a "Darker" telegram and a long operation of the right rocker contact repeatedly sends a "Darker" telegram with the frequency specified in the parameter list (see parameter "Interval for cyclical sending") until the rocker is released.<br>When set to "Toggle/Toggle", a telegram is sent ("On" or "Off") on a short switch operation appropriate to change the actual signal status. Like the "On/Off" mode, this does not affect any dimming operations. |   |

**Application Programs Description**

July 2005

**12 S2 On-off-toggle/Dim/Shu/Display 222001**

| Parameters  | Settings   |
|---|--|
| <b>Left / Right contact</b>   | Toggle/Toggle<br>On/Off  |
| This parameter defines the operating mode to the left rocker contact and the right rocker contact of the lower rocker. When using the default setting, a short operation of the left rocker contact sends an "On" telegram and a short operation of the right rocker contact sends an "Off" telegram. A long operation (see parameter "Long switch operation min.") of the left rocker contact repeatedly sends a "Darker" telegram and a long operation of the right rocker contact repeatedly sends a "Darker" telegram with the frequency specified in the parameter list (see parameter "Interval for cyclical sending") until the rocker is released. When set to "Toggle/Toggle", a telegram is sent ("On" or "Off") on a short switch operation appropriate to change the actual signal status. Like the "On/Off" mode, this does not affect any dimming operations. |  |
| <b>Long switch operation</b>  | adjust by 100%<br>adjust by 1/2<br>adjust by 1/4<br><b>adjust by 1/8</b><br>adjust by 1/16<br>adjust by 1/32<br>adjust by 1/64 |
| This parameter defines the change in light intensity a dimming telegram is to establish on a long switch operation. When set to e.g. "adjust by 1/8", 8 dimming telegrams are required to change the light intensity from 0% to 100%.   |  |
| <b>Function of bottom LED</b>   | Off<br>On<br>Status of right rocker obj. [2]<br>Status of left rocker object [0]   |
| The LED left beside the lower right rocker contact can be set to display the status of an object (object [0] or object [2]) or to use as orientation lights.  |  |

**Notes:**