12 S1 On-off-toggle/Dim/Shu/Display 211001

Devices Employing the Program

Product family: Push Button
Product type: Push Button, single
Manufacturer: Siemens

Name: DELTA BCU single
(two-status switch type)
Order-no.: 5WG1 116-2AB01

Application Description

The application program "12 S1 On-off-toggle/Dim/ Shu/Display 211001" provides parameters to switching, dimming, blinds control, status display via LEDs with the push button single, DELTA BCU (two status switch type). The operating mode to the rocker can be selected with the parameter "Rocker". According to the mode selected, the "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).

Rocker
The various modes can be selected to the rocker by setting the parameter "Rocker: Rocker mode" accordingly:

Switching: Upon operating the rocker an appropriate telegram is sent (on/off/over).

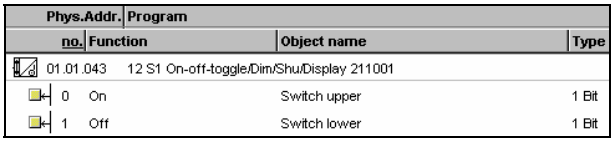
Blinds Control: The application program distinguishes between long and short switch operations. On a long operation of the rocker a telegram is sent to raising (up) or lowering (down) the blinds. On a short operation a telegram is sent to adjusting the louvres or halting the blinds if moving up or down.

Dim by stop telegrams: The application program distinguishes between long and short switch operations. A short switch operation sends a switching telegram (e.g. rocker top: "On", rocker bottom: "Off"). When operating the rocker to a longer period of time (threshold can be adjusted in the parameter list), a dimming telegram (rocker top: "brighten", rocker bottom: "darken") 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. rocker top: "On", rocker bottom: "Off"), a long switch operation sends dimming telegrams (rocker top: "brighten", rocker bottom: "darken") with the frequency specified in the parameter list until the rocker is released.

LED display
The two LEDs situated above the rocker can be set (together only) to display actual object status or to use as an orientation light.

Communication Objects (Switch)



Note:

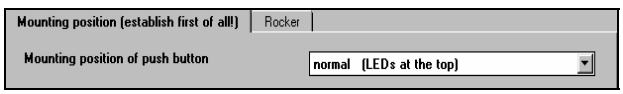
The order of the entries may vary from the above due to individual customization of the table.
All objects that correspond with a user operation have to be assigned to a group address.

Obj	Function	Object name	Type	Flags
0	On Off Toggle	Switch upper	1-Bit	CWTU
This parameter governs the operating mode to the rocker top. According to the parameter settings (see parameter: "Rocker top") "On" or "Off" telegrams are sent. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.				
1	On Off Toggle	Switch lower	1-bit	CWTU
This parameter governs the operating mode to the rocker bottom. According to the parameter settings (see parameter: "Rocker bottom") "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: 4
Maximum number of assignments: 4

Parameters

Mounting position (establish first of all):



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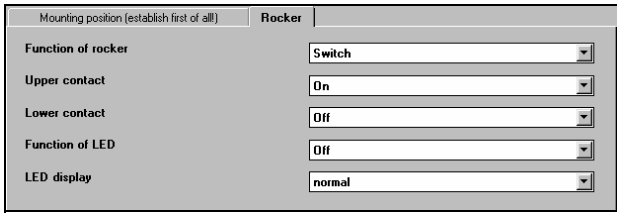
Parameters	Settings
Mounting position of push button	**normal (LEDs at top)** inverted (LEDs at bottom)
This parameter defines the mounting position to all parameters below.	

Parameters (Switch)

Rocker:

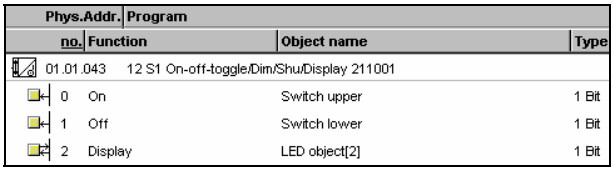


Parameters	Settings
Function of rocker	**Switch** Shutter Dimming with stop telegram Dim. with cyclical sending
This parameter governs the rocker's operating mode. According to the mode selected, the "Rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [1] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below: Switching (object type: 1 bit) Shutter (object type: 1 bit) Dimming by stop telegram (object type: 4 bit) Dimming by cyclic sending (object type: 4 bit)	
Upper contact	**On** Off Toggle
This parameter governs whether an "On" or "Off" telegram is sent via object [0] on operating the rocker top. When set to "over", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.	
Lower contact	On **Off** Toggle
This parameter governs whether an "On" or "Off" telegram is sent via object [0] on operating the rocker bottom. When set to "Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.	

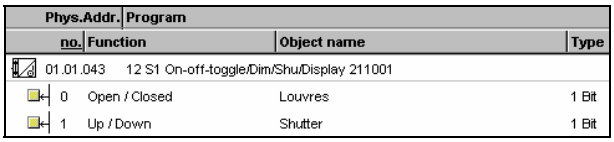
Parameters	Settings
Function of LED	**Off** On Status of rocker object [0] Status of rocker object [1] LED object- object [2]
The LED (below the rocker) can be set to display the status of an object (either object [0], object [1], or optionally object [2]) or to use as an orientation light. Note: When selecting "LED object [2]" in the parameter window "Rocker: LED mode", the appropriate object (display object [2]) is added to the list of objects to assigning the appropriate group address.	
LED display	**normal** inverted
This parameter defines how the LEDs (below the rocker) will display object status.	

Note:

When selecting "LED object [2]" in the parameter window "Rocker: LED mode", the appropriate object (here: display object [2]) is added to the list of objects to assigning the appropriate group address.



Communication Objects (Shutter)



Note:

The order of the entries may vary from the above due to individual customization of the table.
All objects that correspond with a user operation have to be assigned to a group address.

Obj	Function	Object name	Type	Flags
0	Open/Closed	Louvres	1-Bit	CUWT
This is the switching object to adjusting louvres on a short switch operation: A operation of the rocker top opens the louvres by one step with an "Off" telegram and a operation of the rocker bottom closes the louvres by one step with an "On" telegram.				

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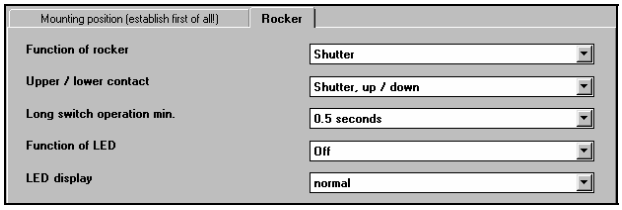
Obj	Function	Object name	Type	Flags
1	Up/Down	Shutter	1-Bit	CUWT
This is the switching object to raising (up) and lowering (down) the blinds on a long switch operation: A operation of the rocker top raises (up) the blinds with an "Off" telegram and a operation of the rocker bottom lowers (down) the blinds with an "On" telegram when using the default parameter setting (see parameter window "Rocker: Rocker top / rocker bottom"). A short switch operation halts a moving blind.				

Maximum number of group addresses: 4
Maximum number of assignments: 4

Parameters (Shutter)

Rocker:

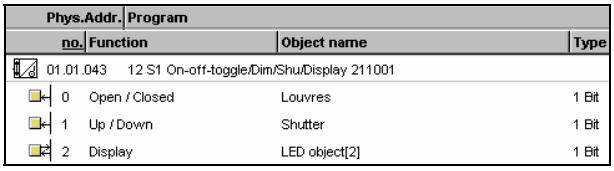


Parameters	Settings
Function of rocker	Switch **Shutter** Dimming with stop telegram Dim. with cyclical sending
This parameter governs the rocker's operating mode. According to the mode selected, the "Rocker" parameter window displays the appropriate parameters in their default setting. Furthermore, the type of object [1] changes automatically (e.g. from 1 bit to switching to 4 bit to dimming) as given below: Switching (object type: 1 bit) Shutter (object type: 1 bit) Dimming by stop telegram (object type: 4 bit) Dimming by cyclic sending (object type: 4 bit)	
Upper / lower contact	**Shutter Up/Down** Shutter Down/Up
This parameter defines the operating mode to the rocker top and the rocker bottom of the rocker. When using the default setting, a short operation of the rocker top opens the louvres by one step with an "Off" telegram and a short operation of the rocker bottom closes the louvres by one step with an "On" telegram. A long operation of the rocker top raises (up) the blinds with an "Off" telegram and a long operation the rocker bottom lowers (Down) the blinds with an "On" telegram.	
Long switch operation min.	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 switch longer than the selected period produces a long switch operation.	

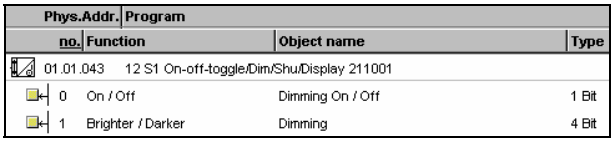
Parameters	Settings
Function of LED	**Off** On Status of rocker object [0] Status of rocker object [1] LED object- object [2]
The LED (below the rocker) can be set to display the status of an object (either object [0], object [1], or optionally object [2]) or to use as an orientation light. Note: When selecting "LED object [2]" in the parameter window "Rocker: LED mode", the appropriate object (display object [2]) is added to the list of objects to assigning the appropriate group address.	
LED display	**normal** inverted
This parameter defines how the LEDs (below the rocker) will display object status.	

Note:

When selecting "LED object [2]" in the parameter window "Rocker: LED mode", the appropriate object (here: display object [2]) is added to the list of objects to assigning the appropriate group address.



Communication Objects (Dimming with stop telegram)



Note:

The order of the entries may vary from the above due to individual customization of the table.
All objects that correspond with a user operation have to be assigned to a group address.

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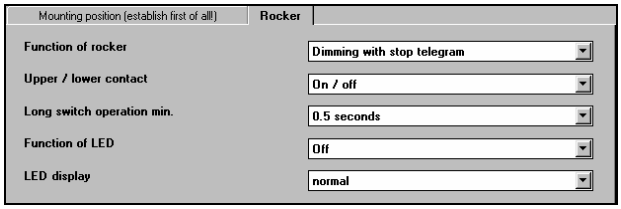
Obj	Function	Object name	Type	Flags
0	On/Off	Dimming On/Off	1-Bit	CUWT
This is the switching object to short switch operations: When using the default setting (see parameter window "Rocker"), a operation of the rocker top sends an "On" telegram and a operation of the rocker bottom sends an "Off" telegram. When set to "Toggle/Toggle", telegrams are sent ("On" or "Off") appropriate to change the actual signal status.				
1	Brighter/darker	Dimming	4-Bit	CUWT
This is the switching object to sending a dimming telegram on a long switch operation: A operation of the rocker top sends a "Brighter" telegram and a operation of the rocker bottom sends a "Darker" telegram. On releasing the rocker the "Stop" telegram is sent.				

Maximum number of group addresses: 4
Maximum number of assignments: 4

Parameters (Dimming with stop telegram)

Rocker:

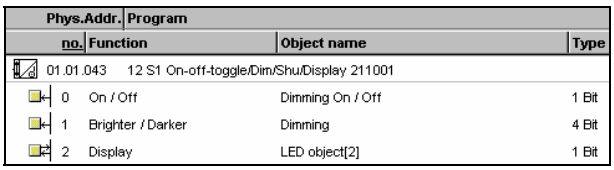


Parameters	Settings
Function of rocker	Switch **Shutter** Dimming with stop telegram Dim. with cyclical sending
This parameter governs the rocker's operating mode. According to the mode selected, the "Rocker" parameter window displays the appropriate parameters in their default setting. Furthermore,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

Parameters	Settings
Upper / lower contact	(Toggle/Toggle) **On/Off**
This parameter defines the operating mode to the rocker top and the rocker bottom of the rocker. When using the default setting a short operation of the rocker top sends an "On" telegram and a short operation of the rocker bottom sends an "Off" telegram. A long operation (see parameter "Long switch operation min.") of the rocker top sends a "Brighter" telegram and a long operation of the rocker bottom 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.	
Long switch operation min.	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 switch longer than the selected period produces a long switch operation.	
Function of LED	**Off** On Status of rocker object [0] Status of rocker object [1] LED object- object [2]
The LED (below the rocker) can be set to display the status of an object (either object [0] or optionally object [2]) or to use as an orientation light. Note: When selecting "LED object [2]" in the parameter window "Rocker: LED mode", the appropriate object (display object [2]) is added to the list of objects to assigning the appropriate group address.	
LED display	**normal** inverted
This parameter defines how the LEDs (below the rocker) will display object status.	

Note:

When selecting "LED object [2]" in the parameter window "Rocker: LED mode", the appropriate object (here: display object [2]) is added to the list of objects to assigning the appropriate group address.



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Communication Objects (Dim. with cyclical sending)

Phys.Addr.	Program		
no.	Function	Object name	Type
01.01.043	12 S1 On-off-toggle/Dim/Shu/Display 211001		
0	On / Off	Dimming On / Off	1 Bit
1	Brighter / Darker	Dimming	4 Bit

Note:

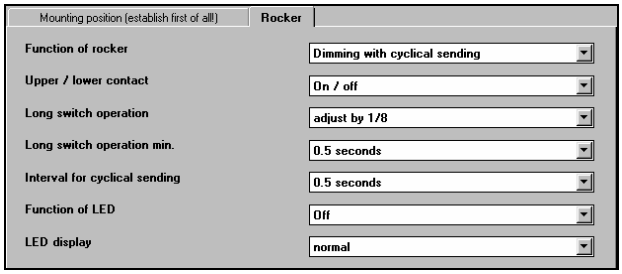
The order of the entries may vary from the above due to individual customization of the table.
All objects that correspond with a user operation have to be assigned to a group address.

Obj	Function	Object name	Type	Flags
0	On/Off	Dimming On/Off	1-Bit	CUWT
This is the switching object to short switch operations: When using the default setting (see parameter window "Rocker "), a operation of the rocker top sends an "On" telegram and a operation of the rocker bottom 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	4-Bit	CUWT
This is the switching object to sending a dimming telegram on a long switch operation: A operation of the rocker top sends a "Brighter" telegram and a operation of the rocker bottom sends a "Darker" telegram. On releasing the rocker the "Stop" telegram is sent.				

Maximum number of group addresses: 4
Maximum number of assignments: 4

Parameters (Dimming with cyclical sending)

Rocker:



Parameters	Settings
Function of rocker	Switch **Shutter** Dimming with stop telegram Dim. with cyclical sending
This parameter governs the rocker's operating mode. According to the mode selected, the "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: Switching (object type: 1 bit) Shutter (object type: 1 bit) Dimming by stop telegram (object type: 4 bit) Dimming by cyclic sending (object type: 4 bit)	
Upper / lower contact	Toggle/Toggle **On/Off**
This parameter defines the operating mode to the rocker top and the rocker bottom. When using the default setting, a short operation of the rocker top sends an “On” telegram and a short operation of the rocker bottom sends an “Off” telegram. A long operation (see parameter “Long switch operation min.”) of the rocker top repeatedly sends a “brighten” telegram and a long operation of the rocker bottom 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.	
Long switch operation	adjust by 100% adjust by 1/2 adjust by 1/4 **adjust by 1/8** adjust by 1/16 adjust by 1/32 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%.	
Long switch operation min.	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 switch longer than the selected period produces a long switch operation.	
Interval for 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.	

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Parameters	Settings
Function of LED	**Off** On Status of rocker object [0] Status of rocker object [1] LED object- object [2]
The LED (below the rocker) can be set to display the status of an object (either object [0] or optionally object [2]) or to use as an orientation light. Note: When selecting "LED object [2]" in the parameter window "Rocker: LED mode", the appropriate object (display object [2]) is added to the list of objects to assigning the appropriate group address.	
LED display	**normal** inverted
This parameter defines how the LEDs (below the rocker) will display object status.	

Note:

When selecting "LED object [2]" in the parameter window "Rocker: LED mode", the appropriate object (here: display object [2]) is added to the list of objects to assigning the appropriate group address.

Phys.Addr.	Program		
no.	Function	Object name	Type
01.01.043	12 S1 On-off-toggle/Dim/Shu/Display 211001		
0	On / Off	Dimming On / Off	1 Bit
1	Brighter / Darker	Dimming	4 Bit
2	Display	LED object[2]	1 Bit

Notes: