12 S1 On-Off-Toggle/Dim/Shu/Scene 211501

Use of the application program

Product family: Push button

Product type: Push button, 1-fold

Manufacturer: Siemens

Name: Push button 1-fold UP 211
DELTA i-system

Order no.: 5WG1 221-2AB_1

Functional description

The application program „12 S1 On-Off-Toggle/Dim/Shu/Scene 211501" allows to configure these functions for a single wall switch UP 221: switching, send value, dimming, shutter/blind control or scene control.

Switching / Send value

When one of the rockers is depressed the corresponding telegram (On/Off/Toggle/8-bit value) is sent immediately. Different 8-bit values may be assigned to each rocker. This allows to e.g. set a dimming actuator to a predefined value.

Shutter / Blinds

Short and long duration of depressing the rocker are distinguished. When the rocker switch is depressed for a short period then a switching telegram is sent, which changes the angle of the slats or stops the movement of the blinds. When the rocker switch is depressed for a longer period then the blind / shutter moves up or down. The direction of the movement can be assigned as left rocker up / right rocker down or left rocker down / right rocker up during configuration. This parameter allows e.g. for control of roof windows, garage doors etc in both directions.

Dimming

Short and long duration of depressing a rocker are distinguished. When the rocker switch is depressed for a short period then a switching telegram (On, Off, or Toggle) is sent. When the rocker switch is depressed for a longer period, which is configurable, then a dimming telegram is sent. The function is dimming with stop telegram. This function includes a dimming telegram sent to start dimming up or down when the rocker is pressed down and a stop telegram when the rocker is released.

Scene (1-bit)

The "scene (1-bit)" function allows for changing the characteristics of a preset scene, i.e. brightness levels and switching states of the groups within a scene, without using the ETS. A pair of rocker switches can be used to recall one scene each (e.g. left rocker: scene 1, right rocker: scene 2) with briefly depressing the respective rocker or save the corresponding scene by depressing the rocker for a longer period. A recall of a scene happens with a 1-bit switching telegram, where the "0"-telegram recalls scene 1 and the "1"-telegram recalls scene 2. A parameter determines, which rocker is assigned to which scene.
A scene is saved via a 1-bit switching telegram, where the "0"-telegram saves scene 1 and the "1"-telegrams saves scene 2. The scene controller must have a functionally corresponding application program.
Before saving a scene the actuators belonging to that scene must be set to the desired light levels and switching states. When receiving a save telegram a scene controller is commanded to interrogate the current light levels and switching states of the actuators and save these as scene settings.
The period distinguishing a short from a long button press can be configured.

Scene (8-bit)

The "scene (8-bit)" function allows for changing the characteristics of a preset scene, i.e. brightness levels and switching states of the groups within a scene, without using the ETS. A pair of rocker switches can be used to recall one scene each with briefly depressing the respective rocker or save the corresponding scene by depressing the rocker for a longer period. A recall of a scene happens with an 8-bit telegram, where the lower 6 bits (bit 0-5) contain the scene number, bit 6 is reserved, and bit 7 is set to "0" (recall). A parameter determines, which rocker is assigned to which scene.
A scene is saved via an 8-bit telegram, where the lower 6 bits (bit 0-5) contain the scene number, bit 6 is reserved, and bit 7 is set to "1" (save). The scene controller or actuators with an 8-bit scene function must have a functionally corresponding application program.
Before saving a scene the actuators belonging to that scene must be set to the desired light levels and switching states. When receiving a save telegram scene controllers or actuators with 8-bit scene function are commanded to interrogate the current light levels and switching states of the actuators and save these as scene settings.
The period distinguishing a short from a long button press can be configured.

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Software behavior on loss/recovery of bus voltage

An initialisation message on bus voltage recovery is not possible. The switch rockers should not be depressed when the bus voltage returns. If a rocker is depressed the corresponding telegram is sent onto the bus. Yet, other bus devices may not be ready to receive and the message may thus be lost.

Communication objects

Note

The view of the objects can be arranged individually i.e. this view can vary.
All objects that correspond with a user operation have to be assigned to a group address.

Maximum number of group addresses: 9
Maximum number of associations: 9

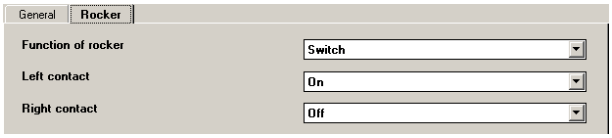
Switching

Communication objects

Phys.Addr	Program		Product
no.	Function	Object name	Type
01.01.001	12 S1 On-Off-Toggle/Dim/Shu/Scen...	Push button 1-fold UP 221 DELTA i-System	
1	Off	Switch (right rocker contact)	1 Bit
0	On	Switch (left rocker contact)	1 Bit

Obj	Function	Object name	Type	Flag
0	On	Switch, (left rocker contact)n	1 Bit	CT
1	Off	Switch, (right rocker contact)	1 Bit	CT
These objects serve as switching objects for the left and right rocker contacts of a pair of rockers. Dependent on the configuration an On or Off telegram is sent. If configured for Toggle switching either On or Off is sent dependent on the current switching state.				

Parameters



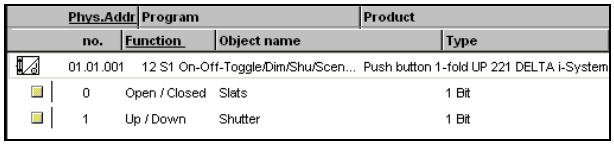
Parameter	Setting
Function of rocker	**Switch** Shutter Dimming with stop telegram Scene 1-bit Scene 8-bit
This parameter determines the function of the rocker. Dependent on the selected function the parameter window "Rocker" changes and presents the corresponding default settings.	
Left contact	**On** Off Toggle 8-bit value
Right contact	On **Off** Toggle 8-bit value
These parameters determine the type of telegrams to be sent via the corresponding objects when the left or right rocker contact is depressed. „On“ respectively „Off“: When the rocker is pressed an On or Off telegram is sent. „Toggle“: When the rocker is pressed the inverse value of the object is sent (toggle). „8-bit value“: When the rocker is pressed a value telegram is sent. When this setting is selected the configuration window changes and the parameters for the 8-bit value appear.	

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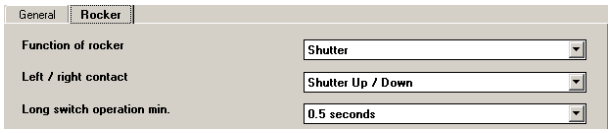
Shutter/blinds

Communication objects



Obj	Function	Object name	Typ	Flag
0	Open/Closed	Slats	1 Bit	CT
This object is used to change the angle of the Slats when the rocker is pressed briefly. With the default parameter setting the slats open one step with the left rocker (Off telegram) and close one step with the right rocker (On telegram).				
1	Up/Down	Shutter	1 Bit	CT
This object is used to move the shutter up or down when the corresponding rocker is pressed for a longer period. With the default parameter setting the shutter moves up when the left rocker is depressed (Off telegram) and moves down when the right rocker is depressed (On telegram). Briefly depressing a rocker stops the shutter.				

Parameters

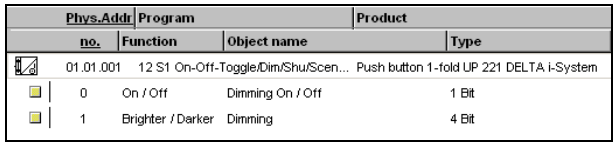


Parameter	Setting
Function of rocker	Switch **Shutter** Dimming with stop telegram Scene 1-bit Scene 8-bit
This parameter determines the function of the rocker. Dependent on the selected function the parameter window "Rocker" changes and presents the corresponding default settings.	
Left / right contact	**Shutter Up/Down** Shutter Down/Up
These parameters determine the type of telegrams to be sent via the corresponding objects when the left or right rocker contact is depressed. With the default settings a short press on the left rocker opens the Slats one step via an Off telegram. A short press on the right rocker closes the slats one step via an On telegram. A long press on the left rocker moves the shutter Up via an Off telegram and a long press on the right rocker closes the shutter with an On telegram.	

Parameter	Setting
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 determines the period for detection of a long switch operation. If a rocker is depressed for a longer period then this is detected as a long switch operation.	

Dimming with Stop telegram

Communication objects

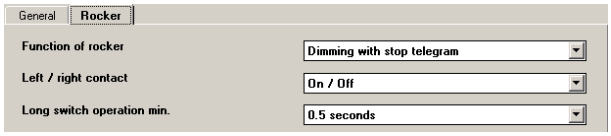


Obj	Function	Object name	Typ	Flag
0	On / Off	Dimming On/Off	1 Bit	CT
This object serves as switching object for the switch when the the switch is depressed for a short period. This is the behavior for the default parameter settings: If the left rocker is pressed an On telegram is sent. If the right rocker is pressed an Off telegram is sent. When the Toggle/Toggle configuration is selected then an On or Off telegram is sent dependent on the current object status is sent.				
1	Brighter/Darker	Dimming	4 Bit	CT
This object serves as dimming object for the switch and sends a dimming telegram when the switch is depressed for a longer period. This is the behavior for the default parameter settings: If the left rocker is pressed a telegram for dimming brighter is sent. If the right rocker is pressed a telegram for dimming darker is sent. When the rocker is released a stop telegram is sent.				

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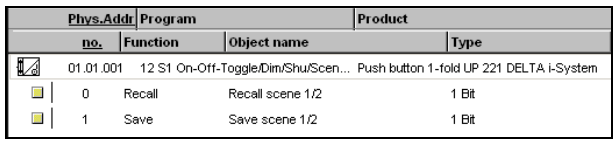
Parameter



Parameter	Setting
Function of rocker	Switch Shutter **Dimming with stop telegram** Scene 1-bit Scene 8-bit
This parameter determines the function of the rocker. Dependent on the selected function the parameter window "Rocker" changes and presents the corresponding default settings.	
Left / right contact	Toggle / Toggle **On / Off** Off / On
This parameter determines the function of the left and right contacts. In the default setting an On telegram is sent when the left rocker contact is depressed briefly. When the right rocker contact is depressed briefly an Off telegram is sent. If a rocker contact is depressed for a longer period a dimming brighter telegram is sent when the left rocker contact is depressed and a dimming darker telegram is sent when the right rocker contact is depressed. When the rocker is released a stop telegram is sent. If the parameter setting Off/On is selected depressing the left rocker contact briefly initiates an Off telegram to be sent. When the right rocker contact is depressed then an On telegram is sent. If a rocker contact is depressed for a longer period a dimming darker telegram is sent when the left rocker contact is depressed and a dimming brighter telegram is sent when the right rocker contact is depressed. When the rocker is released a stop telegram is sent. If the parameter setting Toggle/Toggle is selected depressing one of the rocker contacts briefly initiates an On or Off telegram dependent on the current object status. The dimming function follows the behavior for the On/Off setting.	
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 determines the period for detection of a long switch operation. If a rocker is depressed for a longer period then this is detected as a long switch operation.	

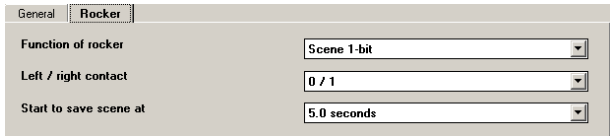
Scene (1-bit)

Communication objects



Obj	Function	Object name	Typ	Flag
0	Recall	Recall scene 1 / 2	1 Bit	CT
The group address assigned to this object is used to send the telegram to recall the scene. On receiving the recall telegram the scene controller sends the preset dimming values via the group objects to the switch-dimming actuators.				
1	Save	Save scene 1/2	1 Bit	CT
Via the group address assigned to this object the save telegram is sent to the scene controller.				

Parameter



Parameter	Setting
Function of rocker	Switch Jalousie Dimming with stop telegram **Scene 1-bit** Scene 8-bit
This parameter determines the function of the rocker. Dependent on the selected function the parameter window "Rocker" changes and presents the corresponding default settings.	
Left / right contact	**0 / 1** 1 / 0
This parameter defines the value sent by the left / right rocker contact. „0 / 1“: Briefly depressing the left rocker contact recalls scene 1 with a "0" telegram sent to the corresponding scene controllers. Briefly depressing the right rocker contact recalls scene 2 with a "1" telegram sent to the corresponding scene controllers. When depressing the rocker contacts for a longer period the scene controllers are triggered to fetch the current brightness and switch settings from the actuators and save these in the coressponding scenes. „1 / 0“: With this setting the assignment of the scenes to the rocker contacts is reversed.	

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Parameter	Setting
Start to save scene at	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 sets the length of the period for depressing the rocker contact, which distinguishes between recalling and saving a scene. The rocker contact is depressed shorter than the defined period: The scene is recalled. The rocker contact is depressed longer than the defined period: The scene is saved.	

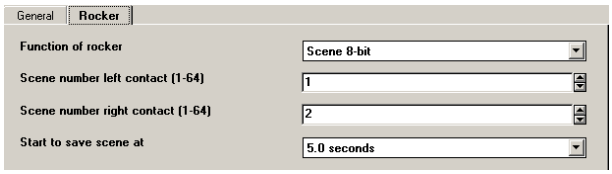
Scene (8-bit)

Communication objects

	Phys.Addr	Program		Product
	no.	Function	Object name	Type
	01.01.001	12 S1 On-Off-Toggle/Dim/Shu/Scen...		Push button 1-fold UP 221 DELTA i-System
	0	Recall	Recall scene	1 Byte
	1	Save	Save scene	1 Byte

Obj	Function	Object name	Typ	Flag
0	Recall	Recall scene	8 Bit	CT
Telegrams recalling the 8-bit scene are sent via the group address assigned to this object.				
1	Save	Save scene	8 Bit	CT
Telegrams saving the 8-bit scene are sent via the group address assigned to this object.				

Parameter



Parameter	Setting
Function of rocker	Switch Shutter Dimming with stop telegram Scene 1-bit **Scene 8-bit**
This parameter determines the function of the rocker. Dependent on the selected function the parameter window "Rocker" changes and presents the corresponding default settings.	
Scene number left contact (1-64)	1...64
Scene number right contact (1-64)	1...64
These parameters determine the scene numbers sent when the left and right rocker contacts are depressed.	
Briefly depressing the left rocker contact recalls the scene with the scene number from the corresponding scene controllers or actuators. Briefly depressing the right rocker contact recalls the scene with the scene number from the corresponding scene controllers or actuators. When the rocker contacts are depressed for a longer period then the corresponding scene controllers are requested to interrogate the current brightness values and switching states and save these in the corresponding scenes.	
Start to save scene at	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 sets the length of the period for depressing the rocker contact, which distinguishes between recalling and saving a scene. The rocker contact is depressed shorter than the defined period: The scene is recalled. The rocker contact is depressed longer than the defined period: The scene is saved.	

Orientation light on/off

Parameter



Parameter	Setting
Orientation light (LED)	On **Off**
This parameter configures the orientation light. With the setting "On" the LED is turned on permanently, with the setting "Off" it is turned off.	

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Application Program Description

September 2007

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Notice

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