12 S4 On/Off/Toggle/Value 241901

Use of the application program

Product family: Push button
Product type: Push button, 4-fold
Manufacturer: Siemens

Name: Push button UP 245 4-fold
            pearl grey
            DELTA profil
Order no.: 5WG1 245 -2AB01

Name: Push button UP 245 4-fold
            titanium white
            DELTA profil
Order no.: 5WG1 245 -2AB11

Name: Push button UP 245 4-fold
            anthracite
            DELTA profil
Order no.: 5WG1 245 -2AB21

Name: Push button UP 245 4-fold
            silver
            DELTA profil
Order no.: 5WG1 245 -2AB71

Name: Push button UP 246 4-fold
            pearl grey
            DELTA profil
Order no.: 5WG1 246 -2AB01

Name: Push button UP 246 4-fold
            titanium white
            DELTA profil
Order no.: 5WG1 246 -2AB11

Name: Push button UP 246 4-fold
            anthracite
            DELTA profil
Order no.: 5WG1 246 -2AB21

Name: Push button UP 246 4-fold
            silver
            DELTA profil
Order no.: 5WG1 246 -2AB71

Name: Push button UP 287 4-fold
            basalt black metallic silver
            DELTA style
Order no.: 5WG1 287 -2AB01

Name: Push button UP 287 4-fold
            titanium white
            DELTA style
Order no.: 5WG1 287 -2AB11

Name: Push button UP 287 4-fold
            basalt black
            DELTA style
Order no.: 5WG1 287 -2AB21

Name: Push button UP 287 4-fold
            titanium white metallic silver
            DELTA style
Order no.: 5WG1 287 -2AB81

Functional description

Using the application program "12 S4 On/Off/Toggle/ Value 241901", the four rockers of the 4-fold push button UP 245, UP 246 DELTA profil and UP 287 DELTA style can be independently assigned parameters for the following functions: switching on/off/toggle, sending 8-bit value, each of the 4 LEDs can operate as a status display or be permanently switched on/off, 5th LED (in the centre of the push button) can be permanently switched on/off as an orientation light.
One pair of push buttons, consisting of the upper and lower push button together with the LED for the upper push button, forms a unit. The upper and lower push buttons always refer to a separate object. The execution of the set functionality is carried out for each push button immediately once the operation or release of the push button is detected. The status display of the LED always refers to the object value of the upper push button.

Push button functions
The push buttons can be assigned various functions. This is carried out by selecting the corresponding parameter setting in the parameter window of the respective push button.

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Switch on/off/toggle:
In the "Switch" configuration, the push button sends the required signal depending on the parameter settings when the push button is pressed or released. The operating time is not evaluated. In the "Toggle" setting, the inverted object value is sent.
A type of "bell function" is also possible as a special function. An "On/Off" signal is sent when the push button is pressed while the inverted signal is sent when the push button is released.

8 bit value:
If the push button is configured for 8 bit values, it sends a set value (0-255) when the push button is pressed. A unique value must be assigned to each push button. The operating time is not evaluated. If required, the push button likewise sends a value when the push button is released: it is only possible to choose between values 0 to 30 in steps.

Display LEDs:
Each of the 4 status LEDs can be switched permanently on or off. If the upper push button is assigned a switch function, the LED can also display the status or the inverted status of the object of the upper push button.

Orientation LED:
The 5th LED (in the centre of the push button) can be used as an orientation light or switched off.

Initialisation signal:
An initialisation signal (on bus voltage recovery) is not possible. It should be noted that the push buttons are always in the neutral position (i.e. not pressed) on bus voltage recovery. If a push button is not in the neutral position on bus voltage recovery, the push button sends the corresponding signal. This cannot however be understood yet by other bus devices as all the devices in the system start up (are ready) at different rates.

Note:

The functions and parameters of push buttons UP 245, UP 246 and UP 287 are identical.

Maximum number of group addresses:	27
Maximum number of associations:	27

Parameters

General:

Parameters	Settings
Orientation light (LED)	**On** Off
The behaviour of the orientation LED can be set in this parameter. The LED can be switched "On" or "Off" here.	

Communication objects

Obj	Object name	Function	Type	Flags
0	Switch outer left, upper push button	On / Off	1-Bit	CWTU
1	Switch outer left, lower push button	On / Off	1-Bit	CWTU
2	Switch centre left, upper push button	On / Off	1-Bit	CWTU
3	Switch centre left, lower push button	On / Off	1-Bit	CWTU
4	Switch centre right, upper push button	On / Off	1-Bit	CWTU
5	Switch centre right, lower push button	On / Off	1-Bit	CWTU
6	Switch outer right, upper push button	On / Off	1-Bit	CWTU

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Obj	Object name	Function	Type	Flags
7	Switch outer right, lower push button	On / Off	1-Bit	CWTU
These objects serve as switching objects for the push buttons. Depending on the parameter settings (see parameter "Function of upper / lower push button"), either an "On" telegram, an "Off" telegram or an "8 bit value" is sent.				

Note:

The functions and parameters of rockers A-D are identical. Each push button can be used for switching or for sending 8 bit values.

Outer left push buttons (Switch / Switch)

Parameters	Settings
Function of upper push button	**Switch**
	8-bit Value
This parameter defines the function of the upper push button. In the "Switch" setting, the push buttons sends the required signal when the push button is pressed or released. The operating time is not evaluated. If "Toggle" is selected, the inverted object value is sent. The upper and lower push buttons always refer to a separate object. A type of bell function is also possible as a special function. An "On/Off" signal is sent when the push button is pressed while the inverted signal is sent when the push button is released.	
Upper push button	**press: On**
	press: Off
	press: Toggle
	release: On
	release: Off
	release: Toggle
	press: On, release: Off
	press: Off, release: On
	press: Toggle, release: Toggle
The signal that is sent when the upper push button is pressed can be set via this parameter.	

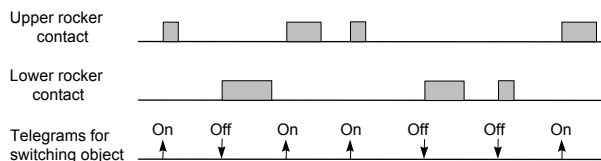| Parameters	Settings
Function of lower push button	**Switch**
	8-bit Value
This parameter defines the function of the lower push button. In the "Switch" setting, the push button sends the required signal when the push button is pressed or released. The operating time is not evaluated. If "Toggle" is selected, the inverted object value is sent. The upper and lower push buttons always refer to a separate object. A type of bell function is also possible as a special function. An "On/Off" signal is sent when the push button is pressed while the inverted signal is sent when the push button is released.	
Lower push button	**press: On**
	press: Off
	press: Toggle
	release: On
	release: Off
	release: Toggle
	press: On, release: Off
	press: Off, release: On
	press: Toggle, release: Toggle
The signal that is sent when the lower push button is pressed can be set via this parameter.	
LED placed by upper push button	On
	Off
	Status, upper push button
	Status inverted, upper push button
This parameter determines the function of the LED. The settings "Status, upper push button" or "Status inverted, upper push button" are only possible if the function of the upper push button has been set to "Switch".	

Outer left push buttons (8-bit Value / 8-bit Value)

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241901, 4 pages

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Technical manual

Update: http://www.siemens.de/installationstechnik

3.15.3.3.2/3

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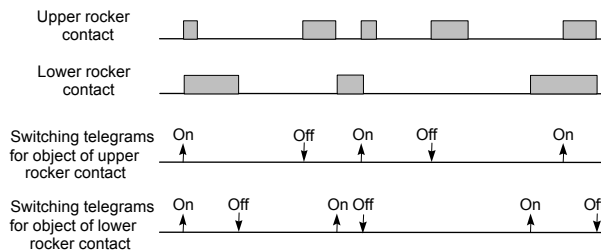| Parameters	Settings
Function of upper push button	Switch **8-bit Value**
This parameter defines the function of the upper push button. If the push button is configured for "8-bit Value", it sends a set value (0-255) when the push button is pressed. A unique value must be assigned to each push button. The operating time is not evaluated. If required, the push button sends a set value when the push button is released. This value can be set in steps between 0 and 30.	
Value of upper push button, Press (0-255)	0 … **255**
This parameter determines the 8 bit value that is sent when the upper push button is pressed. A value between "0" and "255" can be selected.	
Value of upper push button, Release	**no action** 0 1 10 20 30
The value that is sent when the upper push button is released can be set via this parameter.	
Function of the lower push button	Switch **8-bit Value**
This parameter defines the function of the upper push button. If the push button is configured for "8-bit Value", it sends a set value (0-255) when the push button is pressed. A unique value must be assigned to each push button. The operating time is not evaluated. If required, the push button sends a set value when the push button is released. This value can be set in steps between 0 and 30.	
Value of upper push button, Press (0-255)	0 … **255**
This parameter determines the 8 bit value that is sent when the upper push button is pressed. A value between "0" and "255" can be selected.	
Value of upper push button, Release	**no action** 0 1 10 20 30
The value that is sent when the upper push button is released can be set via this parameter.	
LED placed by upper push button	On **Off**
This parameter determines the function of the LED. If the function of the upper push button is set to "Switch", the additional settings of "Status, upper push button" and "Status inverted, upper push button" are possible.	

Timing diagrams: Examples of a push button

1. **Configured for switch function: upper "On", lower "Off"**

2. **Configured for switch function: upper "Toggle", lower "press: On, release: Off"**

3. **Configured for switch function: upper "8-bit Value", lower "8-bit Value"**