11 A2 Shutter 520206

Devices Employing the Program

Product family: Shutter
Product type: Switch
Manufacturer: Siemens

Name: Shutter Switch N 521
Order-no.: 5WG1 521-1AB01

Name: Shutter Switch N 521 pl
Order-no.: 5WG1 521-1PB01

Application Description

This application program allows you to control blinds connected to the two outputs of a shutter switch where the venetian blinds can be moved via the object "Up/Down" while their louvres are adjusted via the object "Louvres". On sending a telegram to adjusting the louvres while the blind is raised (up) or lowered (down), the blind is halted instead. On reaching an extreme position blinds are halted automatically. The safety mode provided protects blinds against storm damage.

Communication Objects

Phys.Addr.		Program		
no.	Object name		Function	Type
01.01.001	11 A2 Shutter 520206			
0	Shutter, Channel A		Up / Down	1 Bit
1	Louvres, Channel A		Open / Closed	1 Bit
2	Shutter, Channel B		Up / Down	1 Bit
3	Louvres, Channel B		Open / Closed	1 Bit
4	Safety		Safety	1 Bit

Note:

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

Obj	Object name	Function	Type	Flags
0	Shutter, Channel A	Up / Down	1 Bit	CWU
	This object is used to moving the blinds (up/down) via channel A. On receiving a logical "1" the blinds are lowered (down), on a "0" they are raised (up).			
1	Louvres, Channel A	Open / Closed	1 Bit	CWU
	This object is used to adjusting the louvres via channel A. On receiving a logical "1" the louvres are turned downwards (close), on a "0" they are turned upwards (open).			

Obj	Object name	Function	Type	Flags
2	Shutter, Channel B	Up / Down	1 Bit	CWU
	This object is used to moving the blinds (up/down) via channel B. On receiving a logical "1" the blinds are lowered (down), on a "0" they are raised (up).			
3	Louvres, Channel B	Open / Closed	1 Bit	CWU
	This object is used to adjusting the louvres via channel B. On receiving a logical "1" the louvres are turned downwards (close), on a "0" they are turned upwards (open).			
4	Safety	Safety	1 Bit	CWU
	This object can be assigned the group address of e.g. an air speed sensor. In case of a storm alarm the air speed sensor sends a logical "1". Otherwise it cyclically sends a "0". On receiving a storm alarm, the shutter switch moves the blinds to their safety position (parameter "Safety position") and locks them against operation. If the air speed sensor fails and no "0" telegrams are sent, the blinds are also moved to their safety position. To use this object, the parameter "Safety" must be set to "enabled".			

Maximum number of group addresses: 12
Maximum number of assignments: 12

Parameters

Safety:

Safety	Shutter/roller blinds	Channel A	Channel B
Safety (e.g. wind alarm) (for both channels)			enabled
Safety position			top
Factor for monitoring time (10-127)			72
Base for monitoring time			Time base 4.2 sec

Parameters	Settings
Safety (e.g. wind alarm) (for both channels)	disabled enabled
This parameter allows you to enable and disable the safety object [4] and must be set to "enabled" when an air speed sensor is to be used.	
Safety position	top bottom
This parameter rules the extreme position in case of a storm alarm, i.e. on a logical "1" at object [4] (= wind alarm).	

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Parameters	Settings
Factor for monitoring time: (10-127)	72
The safety object expects cyclic ("0")telegrams. If no telegrams are received during a monitoring period the safety procedure is started and the blinds are moved to their safety position (see parameter "Safety position"). The monitoring period is ruled by the parameters above (base x factor). If the blinds actuator does not receive a signal during a monitoring period, the safety procedure is initiated. Note: The cyclic send period to sending safety telegrams should be shorter than the monitoring period to avoid the initiation of the safety procedure being caused by sending delays.	
Base for monitoring time:	Time base 130 ms Time base 260 ms Time base 560 ms Time base 1,0 sec. Time base 2,1 sec. **Time base 4,2 sec.** Time base 8,4 sec. Time base 17 sec. Time base 34 sec. Time base 1,1 min Time base 2,2 min Time base 9 min Time base 18 min Time base 35 min Time base 1,2 h
The safety object expects cyclic ("0")telegrams. If no telegrams are received during a monitoring period the safety procedure is started and the blinds are moved to their safety position (see parameter "Safety position"). The monitoring period is ruled by the parameters above (base x factor). If the blinds actuator does not receive a signal during a monitoring period, the safety procedure is initiated. Note: The cyclic send period to sending safety telegrams should be shorter than the monitoring period to avoid the initiation of the safety procedure being caused by sending delays.	

Shutter/roller blinds:

Parameters	Settings
Automatic relay opening operation (after shutter movement / louvre adjust)	enabled (shutter/roller blinds) disabled
When releasing (enabling) the automatic relay disconnection, the voltage is cut off at the active output once the specified period of time has passed. When set to "locked", the device behaves like a normal change-over contact.	

Parameters	Settings
Louvres adjustment	enabled, e.g. shutter only STOP function e.g. roller blinds
When employing venetian blinds this parameter has to be set to "released (blinds)" to allow adjusting the ouvers. It should be set to "STOP mode only" when using sliding shutters where the telegram is only used to halt moving blinds.	

Channel A:

Parameters	Settings
Factor for shutter movement time: (10-255)	24
Base for shutter movement	Time base 8,0 ms Time base 130 ms Time base 2,1 sec **Time base 33 sec**
The time period to moving blinds is generated by multiplying the parameters to base and factor. This is the period the respective output is activated on receiving an appropriate telegram at the "Up/down" object. This parameter is ignored when the parameters "automatic relay disconnection" is set to "disabled".	
Factor for louvres adjustment (10-255)	24
Base for louvres adjustment	**Time base 8,0 ms** Time base 130 ms Time base 2,1 sec Time base 33 sec
The time period to adjusting louvres is generated by multiplying the parameters to base and factor. This is the period the actuator is activated to adjusting the louvres by one step.	
Factor for pause on change in direction (5-255)	63
The specified minimum time periods of the shutter motors according to the relevant operating and mounting instructions have to be heeded.	

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Parameters	Settings
Base for pause on change in direction	**Time base 8,0 ms** Time base 130 ms Time base 2,1 sec Time base 33 sec
The delay when reversing the blinds' move direction is generated by multiplying the parameters to base and factor. To preserve the actuator it is halted to the specified period before reversing the move direction. The specified minimum time periods of the shutter motors according to the relevant operating and mounting instructions have to be heeded.	
Behavior on bus voltage failure (no pause on change in direction)	**move upwards** move downwards STOP maintain status
This parameter rules the blinds' response to a bus voltage failure. Note: When using actuators at more than 150 W the settings "halt" or "maintain state" should be used to preserve the relay contacts. Note: The above reverse move delay is ignored when reversing the blind movement as a response to bus voltage failure.	

Channel B:

Parameters	Settings
Factor for shutter movement (10-255)	**24**
Base for shutter movement	Time base 8,0 ms Time base 130 ms Time base 2,1 sec **Time base 33 sec**
The time period to moving blinds is generated by multiplying the parameters to base and factor. This is the period the respective output is activated on receiving an appropriate telegram at the "Up/down" object. This parameter is ignored when the parameters "automatic relay disconnection" is set to "disabled".	
Factor for louvres adjustment (10-255)	**24**
Base for louvres adjustment	**Time base 8,0 ms** Time base 130 ms Time base 2,1 sec Time base 33 sec
The time period to adjusting louvres is generated by multiplying the parameters to base and factor. This is the period the actuator is activated to adjusting the louvres by one step.	

Parameters	Settings
Factor for pause on change in direction (5-255)	**63**
The specified minimum time periods of the shutter motors according to the relevant operating and mounting instructions have to be heeded.	
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Notes