

25 A8 Venetian blind actuator 980601**Use of the application program**

Product family: Venetian blind
 Product type: Switch
 Manufacturer: Siemens

Name: Venetian blind actuator N 523/11
 Order no.: SWG1 523-1AB11

Functional description**Application**

The Venetian blind actuator N 523/11 is a device for DIN-rail mounting with N-system dimensions and a width of 8 module units, intended for controlling shutters, blinds and awnings. Only one sun blind drive mechanism (motor) for AC 230 V with electromechanical limit switches or with integrated electronics for final position disconnection may be connected to each of the 8 output channels of the Venetian blind actuator N 523/11. Parallel operation of several drives on one channel requires the intermediate switching of a special isolating relay.

Note: Engineering tool software (ETS) from ETS3 is required for parameter setting and for loading the application program.

Functions and objects

The application program "25 A8 Venetian blind actuator 980601" can only be used together with the Venetian blind actuator N 523/11. It is structured so that there is sufficient basic functionality in the supplied state for simple applications in combination with 19 basic communication objects available. Switching from direct mode to bus mode and vice versa is reported via the "Status direct mode" object, which is always present.

It is ensured via an alarm object that influences all channels that the blind is raised automatically for example in the event of a wind / rain alarm and that it is prevented from being lowered via the bus when the alarm is still present. Movement of the blinds can also be disabled at any time via the movement blockade object, which likewise influences all channels (e.g. while outer blinds are being cleaned).

Two 1-bit command objects that are also always present per channel enable a blind to be moved into the upper or lower final position. They also enable the blind to be stopped and the stepwise adjustment of the slats.

The following objects can be added via the parameter window "Functions, Objects":

- one "8-bit scene" object,
- one "Alarm" object per channel,
- one "Movement blockade" object per channel,
- two objects per channel to program / recall 2 positions,
- one "Blind centrally Up / Down" object per channel,

- three objects per channel: one object to switch between automatic / manual mode as well as the 8-bit command objects for positioning of sun blinds and slats via percentage values in automatic mode,
- one "Status automatic mode" object per channel,
- one 8-bit command object for standard mode (blind position in %),
- one 8-bit status object (Status blind position in %),
- up to two 1-bit status objects (Status end position up / down) per channel.

Configuration of the channels

To enable a simple and rapid parameter setting of the Venetian blind actuator N 523/11, it can be selected whether the parameter setting should be carried out for 4 channels at a time or for all channels jointly or individually.

It is to be set per channel via a parameter whether a Venetian blind or a roller shutter (or an awning or an actuator to open / close a door, a window or a damper) is connected to the channel. If a Venetian blind is connected, an 8-bit command object "Slats position in %" as well as an 8-bit status object "Status slats position in %" can be added in standard mode.

In addition, a "Sunshine" object can be added per channel and adjusted via two parameters, which actions are to be carried out for Sunshine ON or OFF.

The travel times of the blind from one limit position to another, as well as the adjustment period of the slats from fully closed to horizontal and to the start of movement of the blind, must be determined as accurately as possible and entered.

The pause duration during a change in movement direction does not need to be set. It is fixed at approx. 1 s for all channels.

To enable a certain level of daylight to enter the room for example, it is possible to set, once the blind has been lowered into the lower final position without disruption and the limit switch has been addressed, which intermediate position the slats should then be rotated into respectively for a shutter, how long it is to be raised again. To guarantee the uniform final positions of all the blinds on a façade, when a movement command into the lower or upper final position of the sun blind is given, the set travel time can be extended by an adjustable time to safely reach the upper or lower final position by addressing the respective limit switch.

Note: For a blind with horizontal slats and a standard blind drive, changing the slats position also leads to a small change of the blind position. Opening the slats is tied to a minor upward movement, closing the slats to a minor downward movement of the blind.

25 A8 Venetian blind actuator 980601**Bus mode / direct mode**

For direct operation of the actuator outputs, AC 230 V must be applied at the actuator and it must be switched from bus mode to direct mode. If direct mode is switched on, then the yellow LED next to the push button will light up. The change of operating mode is also transmitted via the bus (see "Status direct mode" object).

In direct mode, an output remains switched on while the associated push button on the top of the device is pressed. As the direct mode is fully isolated from the bus communication, the presence of an alarm or the activation of the movement blockade against the raising or lowering of the blind is not taken into account during direct mode.

Note: The device will go automatically into direct mode after the application program has been "unloaded" using the ETS or in case of an error. Direct mode cannot be switched off in this case.

Automatic / manual mode or standard mode

It can be set via the "Differentiation automatic / manual mode" parameter in the "Functions, Objects" parameter window whether a distinction is to be made between automatic and manual mode or whether there is only one operating mode (standard mode).

During standard mode, the two 1-bit objects for controlling a Venetian blind and its slats are always available per channel. These can be supplemented by further objects via the "Functions, Objects" parameter window if required.

Via the "Channel X, blind centrally Up / Down" object, the channel of the actuator is first of all switched to automatic mode and then moved into the specified final position. Use of this central command guarantees that the blinds in rooms that are switched to manual mode by their user and not switched back to automatic mode before the user leaves the room or premise can also be raised centrally at night and lowered centrally in the morning when the sun starts shining. If for a channel a roller blind positioned on the inside and serving to darken the room is to be moved only locally and manually (not automatically via a central command), then the linking of this central command with a group address has to be omitted for this channel.

In addition, for each channel, both the blinds and the slats are to be moved in automatic mode into an intermediate position using commands with a position specification in the range of 0...100 %. How exactly the desired position in percent is to be taken in by the blinds and the slats is determined by the drive used and the gear, not by this software.

In automatic mode there is one object available per channel to switch the channel to manual or automatic

mode and two 1-bit objects to control Venetian blinds and slats in manual mode. Further objects can be supplemented via the parameter window "Functions, Objects" if required.

When using a weather station or a shutter control unit that can send the object "Sunshine", this object can be used to block or release the adjusting of the slats on those channels for which the automatic mode is switched on and this object is released, after the blinds have been moved into the upper or lower final position.

Manually moving a blind or adjusting its slats when the blind is in automatic mode by using the two 1-bit objects for manual operation (e.g. by using a Venetian blind pushbutton in the room) always results in an automatic switching from automatic mode to manual mode for the affected channel. All automatic commands for the channel set to manual mode are no longer carried out. This ensures that a person using a room can permanently bring his blind into a desired position that can only be changed by a superior automatic system once the channel has been switched back to automatic mode or can be superseded by the central command if this has been released for the channel.

Behaviour in case of bus / mains voltage failure and recovery

In case of bus voltage failure, a started blind movement or slat adjustment will be completed. The new positions of blind and slats are stored and automatically transmitted once the bus voltage is recovered.

A mains voltage failure leads to the immediate deactivation of all actuator channels (depending on the mains supply of the actuator electronics and the relays used). The current positions of the sun blind and the slats of all channels are permanently stored so that they may be reconstructed once the mains supply is recovered.

If the mains voltage supply is recovered, the configured actions are carried out and new positions may be transmitted. If after mains voltage recovery or after the application has been loaded or after switching from direct to bus operation, the current positions of the blind and the slats are not known to the microcontroller of the actuator, then the first telegram to move the blind triggers a reference movement to one of the final positions. If the blind is already in the final position to be approached, then the corresponding relay output is still switched on for the duration of the set travel time.

25 A8 Venetian blind actuator 980601**Communication objects**

Maximum number of group addresses: 200
Maximum number of associations: 200

Via the Alarm object, in the event of a wind or rain alarm all blinds are moved into the upper final position, and movement into another position is blocked while the alarm is still present (i.e. all blind and slat commands received at Alarm = 1 as well as commands for switching the automatic mode on or off are ignored and also not executed later at Alarm = 0).

The "Movement blockade" object has a higher priority than the "Alarm" object, i.e. if the movement blockade object is set to logical 1 then the sun blind can also not be moved via an alarm object changing to a logical 1. However, if an alarm signal is still present after the blockade has been ended, then the channel in question moves automatically into the set safety position. In all other respects the behaviour of the "Movement blockade" object corresponds to that of the "Alarm" object.

Figure 1 shows the 19 basic communications objects which are visible in the ETS for a Venetian blind actuator N 532 / 11 in the supplied state with standard mode.

Number	Name	Object Function	Length
0	Status direct mode	On / Off	1 bit
2	Alarm	On / Off	1 bit
3	Movement blockade	On / Off	1 bit
14	Channel A, blind	Up / Down	1 bit
15	Channel A, stop / slats	Open / Close	1 bit
32	Channel B, blind	Up / Down	1 bit
33	Channel B, stop / slats	Open / Close	1 bit
50	Channel C, blind	Up / Down	1 bit
51	Channel C, stop / slats	Open / Close	1 bit
68	Channel D, blind	Up / Down	1 bit
69	Channel D, stop / slats	Open / Close	1 bit
86	Channel E, blind	Up / Down	1 bit
87	Channel E, stop / slats	Open / Close	1 bit
104	Channel F, blind	Up / Down	1 bit
105	Channel F, stop / slats	Open / Close	1 bit
122	Channel G, blind	Up / Down	1 bit
123	Channel G, stop / slats	Open / Close	1 bit
140	Channel H, blind	Up / Down	1 bit
141	Channel H, stop / slats	Open / Close	1 bit

Figure 1. Standard mode, communication objects

In standard mode, a maximum of 98 communication objects are available. These are only visible if all additional possible functions and objects have been activated when starting up the device. Figure 2 shows, in addition to the two channel-independent objects, the 12 objects that are maximally available for a channel in standard mode.

Number	Name	Object Function	Length
0	Status direct mode	On / Off	1 bit
1	8-bit scene	recall / program	1 Byte
5	Channel A, alarm	On / Off	1 bit
6	Channel A, movement blockade	On / Off	1 bit
12	Channel A, blind position	0...100%	1 Byte
13	Channel A, slats position	0...100%	1 Byte
14	Channel A, blind	Up / Down	1 bit
15	Channel A, stop / slats	Open / Close	1 bit
16	Channel A, position 1 / 2	recall	1 bit
17	Channel A, position 1 / 2	program	1 bit
19	Channel A, status blind position	0...100%	1 Byte
20	Channel A, status slats position	0...100%	1 Byte
21	Channel A, status end position up	On / Off	1 bit
22	Channel A, status end position down	On / Off	1 bit

Figure 2. Standard mode, communication objects per channel (max. number)

In automatic mode, a minimum of 44 communication objects are available. Figure 3 shows, in addition to the four channel-independent objects, the 5 objects that are maximally available per channel in automatic mode.

Number	Name	Object Function	Length
0	Status direct mode	On / Off	1 bit
2	Alarm	On / Off	1 bit
3	Movement blockade	On / Off	1 bit
4	Blinds, centrally	On / Off	1 bit
8	Channel A, automatic mode	On / Off	1 bit
10	Channel A, automatic mode, blind position	0...100%	1 Byte
11	Channel A, automatic mode, slats position	0...100%	1 Byte
14	Channel A, blind	Up / Down	1 bit
15	Channel A, stop / slats	Open / Close	1 bit

Figure 3. Automatic mode, communication objects per channel (min. number)

In automatic mode, a maximum of 130 communication objects are available. These are only visible if all additional functions and objects have been activated when starting up the device. Figure 4 shows, in addition to the two channel-independent objects, the 16 objects that are maximally available per channel in automatic mode.

Number	Name	Object Function	Length
0	Status direct mode	On / Off	1 bit
1	8-bit scene	recall / program	1 Byte
5	Channel A, alarm	On / Off	1 bit
6	Channel A, movement blockade	On / Off	1 bit
7	Channel A, blind centrally	Up / Down	1 bit
8	Channel A, automatic mode	On / Off	1 bit
9	Channel A, sunshine	On / Off	1 bit
10	Channel A, automatic mode, blind position	0...100%	1 Byte
11	Channel A, automatic mode, slats position	0...100%	1 Byte
14	Channel A, blind	Up / Down	1 bit
15	Channel A, stop / slats	Open / Close	1 bit
16	Channel A, position 1 / 2	recall	1 bit
17	Channel A, position 1 / 2	program	1 bit
18	Channel A, status automatic mode	On / Off	1 bit
19	Channel A, status blind position	0...100%	1 Byte
20	Channel A, status slats position	0...100%	1 Byte
21	Channel A, status end position up	On / Off	1 bit
22	Channel A, status end position down	On / Off	1 bit

Figure 4. Automatic mode, communication objects per channel (max. number)

25 A8 Venetian blind actuator 980601**Commentaries on the communication objects**

Object	Object name	Function	Type	Flags
0	Status direct mode	On / Off	1 Bit	CRT
<p>A message is sent via this object that the actuator has been switched from bus mode to direct mode via the "Direct mode" push button on the top of the actuator (direct mode = On), or, respectively, that a switch has been made back to bus mode from direct mode (direct mode = Off). When direct mode is switched On (the associated LED on the top of the actuator lights up), direct activation of the actuator channels is enabled via the corresponding pushbutton on the top of the actuator. During direct mode, an output remains switched On while the associated pushbutton on the top of the device is pressed. As the direct mode is fully isolated from the bus communication, the presence of an alarm or the activation of the movement blockade is not taken into account.</p> <p>Blind and slat commands received during direct mode, as well as commands for switching the automatic mode On or Off, are ignored and also not executed later at direct operation = 0, i.e. after switching back to bus mode (the yellow LED on the top of the actuator used for indicating direct operation is switched off).</p> <p>Alarm commands and movement blockade commands received in direct mode as well as commands for the "Blinds centrally" object or for one of the "Channel x, blind centrally" objects or one of the "Channel x, sunshine" objects are stored and carried out after switching back to bus mode.</p> <p>The direct mode status is transmitted automatically after bus / mains voltage recovery.</p>				
1	8-bit scene	recall / program	1 Byte	CRWT
<p>With this object, the 8-bit scene with the number x is recalled (restored) or programmed (stored). Bit 0...5 contain the scene number. If Bit 7 is set to log. 1, then the scene is programmed. If Bit 7 is set to log. 0, then the scene is recalled. Bit 6 does not have any meaning at this point and must be set to log. 0. If automatic mode is activated (automatic mode = On), then programming or recalling a scene automatically leads to switching to manual mode (automatic mode = Off).</p> <p>Successfully programming a blind position is only possible if the travel time of the blind and the adjustment time of the slats have been specified, the status objects for the blind and slat positions have been synchronised with a reference movement into the upper final position and the sun blind is not moving.</p>				

Object	Object name	Function	Type	Flags
2 (5, 23, 41, 59, 77, 95, 113, 131)	Alarm (resp. channel A, B, C, D, E, F, G, H, alarm)	On / Off	1 Bit	CRWT
<p>This object can be linked with an alarm signal from a wind, rain or frost sensor, which sends cyclically a logical 0 in the idle state and a logical 1 in the event of an alarm. Via the parameter "Behaviour on alarm", it can be set individually per channel whether the channel should not react to an alarm ("no action", e.g. in the case of an interior blind) or whether the Venetian blind actuator should e.g. move the outer Venetian blind connected to this channel into the upper final position in the event of a wind alarm and block movement out of this position while the wind alarm is still present. Sun blind and slat commands received during alarm operation, as well as commands for switching the automatic mode On or Off, are stored and carried out later when Alarm = 0.</p> <p>The blind likewise moves to the set safety position if a time has been assigned to the parameter "Monitoring time for alarm" and no telegrams have been received during the set time interval.</p> <p><u>Caution:</u> If the actuator is switched to direct mode, the movement of the blinds is possible in spite of an alarm being received via the bus.</p>				
3 (6, 24, 42, 60, 78, 96, 114, 132)	Movement blockade (resp. Channel A, B, C, D, E, F, G, H, movement blockade)	On / Off	1 Bit	CRWT
<p>If a logical 1 is received via this object, then movement of the blind via bus telegrams is blocked until a logical 0 is received via this object. This object can therefore be used e.g. while the outer Venetian blinds are being cleaned to prevent the blinds from being raised e.g. by a time switch so that the cleaning staff are not endangered, or when the window is open, to prevent an internal blind from being lowered and damaged as a result or to prevent a roller shutter from being lowered when the patio door is open and thus locking out the occupants.</p> <p>Movement blockade = 1 has the highest priority and cannot be overridden by an alarm. Alarm commands, automatic mode commands for sun blind and slat positioning, commands to switch automatic mode On or Off as well as orders for the "Blinds centrally" object or for one of the "Channel x, blind centrally" objects or one of the "Channel x, sunshine" objects received with Movement blockade = 1 are stored and carried out later when Movement blockade = 0.</p> <p><u>Caution:</u> If the actuator is switched to direct mode, the movement of the blinds is possible even if the "Movement blockade" object has been activated via the bus.</p>				

25 A8 Venetian blind actuator 980601

Object	Object name	Function	Type	Flags
4 (7, 25, 43, 61, 79, 97, 115, 133)	Blinds centrally (resp. Channel A, B, C, D, E, F, G, H, blind centrally)	Up / Down	1 Bit	CRWT
If a telegram is received at this object, all channels of the Venetian blind actuator that are enabled for this object are first of all switched to "Automatic mode" (if released in the parameter setting) and then the blinds are moved by all channels simultaneously. If a logical 0 is received, then the blind is raised (opened); if a logical 1 is received, then it is lowered (closed). If Venetian blinds travel into the lower final position via this object, the slats position stipulated via the "Slats position after blind DOWN in percent" parameter is then approached automatically.				
8, 26, 44, 62, 80, 98, 116, 134	Channel A, B, C, D, E, F, G, H, automatic mode	On / Off	1 Bit	CRWT
With these objects, the corresponding channels can be switched between the operating modes "Automatic mode" and "Manual mode". The object value (1 = automatic mode, 0 = manual mode) of these objects is updated when the channel operating mode is changed and can be queried via the bus.				
9, 27, 45, 63, 81, 99, 117, 135	Channel A, B, C, D, E, F, G, H, sunshine	On / Off	1 Bit	CRWT
When using a shutter control unit, this object serves to release or block the slats positioning and possibly to travel the blinds into the upper or lower limit position additionally. To do this, this object sunshine must be linked to the corresponding object of the shutter control unit or of the weather station. If a telegram is received for this object, then all blinds of those channels for which automatic mode is switched On will be moved at the same time, and subsequently the positioning of the blinds and slats via percentage commands will be released or blocked. If a log. 0 is received, then the blinds will be moved to the upper limit position (opened) and the positioning of blinds and slats via percentage commands will be blocked; if a log. 1 is received, then the blinds will be moved to the lower limit position (closed) and the positioning of blinds and slats via percentage commands will be released. If a Venetian blind is moved into the lower limit position, then the slats are subsequently rotated into the position specified by the "Slats position after blind DOWN in percent" parameter.				

Object	Object name	Function	Type	Flags
10, 28, 46, 64, 82, 100, 118, 136	Channel A, B, C, D, E, F, G, H, automatic mode, blind position	8-bit value	1 Byte	CRWT
Using this object, the blind of the corresponding channel can only be moved into a chosen position in <u>automatic mode</u> . If the channel is in "manual mode", a movement command is not executed but is stored and executed after switching back to automatic mode. Blind positions can be transmitted as EIS6 in a value range of 0 to 255 using this object. The following definitions have to be kept: 0 or 1 (=0%) Blind fully Up 255 (=100%) Blind fully Down As soon as the blind position stipulated via this object has been reached, the slats position which was last set via the "Automatic mode, slats position" object belonging to the respective channel is automatically restored. If the blind is moved into an intermediate position via this object for the first time after mains voltage recovery, then a limit switch is approached beforehand in order to synchronise the position. In addition, the slats then remain fully open (horizontal slat position) until a positioning command to adjust the slats is received. If one of the final positions is to be approached, the set travel time is automatically extended by the set prolongation time, so that the reaching of the upper or lower final position is guaranteed by addressing the limit switch. Once the blind adjustment has been completed or the final position has been reached, the object value of all status objects (status blind and slats position together with status end position up / down) is updated and, if set correspondingly, transmitted via the bus.				
11, 29, 47, 65, 83, 101, 119, 137	Channel A, B, C, D, E, F, G, H, automatic mode, slats position	8-bit value	1 Byte	CRWT
Using this object, the slats of the corresponding channel can only be moved into a chosen position in <u>automatic mode</u> . If the channel is in "manual mode", the movement command is not executed but is stored and executed after switching back to automatic mode. The slat adjustment may cause the height of the blind to vary slightly. If the current slat position is invalid (status value = 0, e.g. after bus voltage recovery), the slat is not adjusted. The slat position becomes valid and is applied only after a final position has been reached. Slat positions can be transmitted as EIS6 in a value range of 0 to 255 using this object. The following definitions have to be kept: 0 or 1 (=0%) Slats fully open (horizontal) 255 (=100%) Slats fully closed (vertical) As soon as the slat adjustment has been completed or the final position has been reached, the object value of all status objects (status blind and slat position together with status end position up / down) is updated and, if set correspondingly, transmitted via the bus.				

25 A8 Venetian blind actuator 980601

Object	Object name	Function	Type	Flags
12, 30, 48, 66, 84, 102, 120, 138	Channel A, B, C, D, E, F, G, H, blind position	8-bit value	1 Byte	CRWT
<p>Using this object, the blind of the corresponding channel can be moved into a chosen position in <u>standard mode</u>. Blind positions can be transmitted as EIS6 in a value range of 0 to 255 using this object. The following definitions have to be kept:</p> <p>0 or 1 (=0%) Blind fully Up 255 (=100%) Blind fully Down</p> <p>As soon as the blind position stipulated via this object has been reached, the slat position which was last set via the "Slats position" object belonging to the respective channel is automatically restored.</p> <p>If the blind is moved into an intermediate position via this object for the first time after mains voltage recovery, then a limit switch is approached beforehand in order to synchronise the position. In addition, the slats then remain fully open (horizontal slat position) until a positioning command to adjust the slats is received.</p> <p>If one of the final positions is to be approached, the set travel time is automatically extended by the set prolongation time, so that the reaching of the upper or lower final position is guaranteed by addressing the limit switch.</p> <p>Once the slat adjustment has been completed or the final position has been reached, the object value of all status objects (status blind and slats position together with status end position up / down) is updated and, if set correspondingly, transmitted via the bus.</p>				
13, 31, 49, 67, 85, 103, 121, 139	Channel A, B, C, D, E, F, G, H, slats position	8-bit value	1 Byte	CRWT
<p>Using this object, the slats of the corresponding channel can be moved into a chosen position in <u>standard mode</u>. The slats adjustment may cause the height of the Venetian blind to vary slightly. If the current slat position is invalid (status value = 0, e.g. after bus voltage recovery), the slat is not adjusted. The slats position becomes valid and is applied only after a final position has been reached.</p> <p>Slat positions can be transmitted as EIS6 in a value range of 0 to 255 using this object. The following definitions have to be kept:</p> <p>0 or 1 (=0%) Slats fully open (horizontal) 255 (=100%) Slats fully closed (vertical)</p> <p>As soon as the slats adjustment has been completed or the final position has been reached, the object value of all status objects (status blind and slats position together with status end position up / down) is updated and, if set correspondingly, transmitted via the bus.</p>				

Object	Object name	Function	Type	Flags
14, 32, 50, 68, 86, 104, 122, 140	Channel A, B, C, D, E, F, G, H, blind	Up / Down	1 Bit	CRWT
<p>The Up / Down movement of the blind for the corresponding channel is initiated via these objects. The blind is raised on receipt of a logical 0 and lowered on receipt of a logical 1. The motor of the blind remains switched on until either a stop command is received or the set travel time including the prolongation time has elapsed and the final position must therefore have been reached.</p> <p>If the blind moves without any intermediate stop from the upper to the lower final position (Down) via this object and a "Slats position after blind DOWN in percent" has been set, the slats are opened accordingly.</p> <p>During automatic mode, the receipt of a telegram to one of these objects always effects automatic switching from automatic to manual mode for the channel in question. All automatic mode commands for a channel being in manual mode then are not executed.</p>				
15, 33, 51, 69, 87, 105, 123, 141	Channel A, B, C, D, E, F, G, H, stop, slats	open / close	1 Bit	CRWT
<p>Via these objects, the movement of a blind is stopped for the respective channel regardless of whether the telegram contains a logical 0 or a logical 1. If the blind is stationary, the slats are opened by one step on receipt of a logical 0 and closed by one step on receipt of a logical 1.</p> <p>The receipt of a telegram to one of these objects always effects automatic switching from automatic to manual mode for the channel in question. All automatic mode commands for a channel being operated manually then are not executed.</p>				
16, 35, 52, 70, 88, 106, 124, 142	Channel A, B, C, D, E, F, G, H, position 1 / 2	recall	1 Bit	CRWT
<p>This and the following object make it possible for a person using a room with a pair of bus pushbuttons allocated to the function "Program / recall 1-bit scene", to program a desired position of the blind and its slats by pressing the corresponding bus pushbutton for at least 1 s and to recall the programmed position of the blind and its slats automatically by briefly pressing this button.</p> <p>With this object, two desired intermediate positions of the blind connected to the respective channel as well as its slats can be recalled automatically. To make this possible, these settings first need to have been programmed via the following object.</p> <p>On receiving a "0" telegram, the blind and slat setting stored in position 1 is approached; on receiving a "1" telegram, the blind and slat setting stored in position 2 is approached.</p>				

25 A8 Venetian blind actuator 980601

Object	Object name	Function	Type	Flags
17, 36, 53, 71, 89, 107, 125, 143	Channel A, B, C, D, E, F, G, H, position 1 / 2	program	1 Bit	CRWT
<p>Via this object, the programming of two desired intermediate positions of the blind connected to this channel as well as its slats can be initiated. The programmed (stored) positions can subsequently be approached again (recalled) via the preceding object at any time.</p> <p>Successfully programming a position is only possible if the travel time of the sun blind and the adjustment of the slats have been specified and the status objects for the blind and slats positions have been synchronised with reference movements into the upper limit position.</p> <p>On receiving a "0"-telegram, the current states of the „Status sunshine position“ and „Status slats position“ objects are queried and stored as position 1. Position 2 is stored accordingly after receiving a "1"-telegram.</p>				
18, 37, 54, 72, 90, 108, 126, 144	Channel A, B, C, D, E, F, G, H, status automatic mode	On / Off	1 Bit	CRT
<p>These objects are only shown if the "Differentiation automatic / manual mode" parameter is set, i.e. if a differentiation is desired.</p> <p>With these objects, the status of the automatic mode can be queried per channel and, depending on the configuration, may also be sent automatically in case of a change in status as well as after mains voltage recovery.</p> <p>The "automatic mode" operating mode is maintained in the background even during activated direct operation, movement blockage and alarm, and the status object set is accordingly, even if another operating mode overrides the automatic operation.</p>				
19, 38, 55, 73, 91, 109, 127, 145	Channel A, B, C, D, E, F, G, H, status blind position	0...100%	1 Byte	CRT
<p>Via this object, the position of the blind (as a percentage value) can be queried at any time or sent automatically after the travel has stopped. The upper limit position corresponds to the value 1 (= 0%) and the lower limit position to the value 255 (= 100%). The value 0 is used to indicate an unknown position (e.g. after the actuator has just been (re-)started).</p> <p>Updating the status object takes place for the first time when the travel time of the blind and the adjustment times of the slats have been entered and an uninterrupted travel to a limit position has taken place.</p>				

Object	Object name	Function	Type	Flags
20, 39, 56, 74, 92, 110, 128, 146	Channel A, B, C, D, E, F, G, H, status slats position	0...100%	1 Byte	CRT
<p>Via this object, the position of Venetian blind slats (as a percentage value) can be queried at any time or sent automatically after the slats have been adjusted. The horizontal slat position corresponds to the value 1 (= 0%) and the lower limit position (slats completely closed) to the value 255 (= 100%). The value 0 is used to indicate an unknown slat position (e.g. after the actuator has just been (re-)started or if the slats are turned backwards before the travel begins).</p> <p>Updating the status object takes place for the first time when the travel time of the blind and the adjustment times of the slats have been entered and an uninterrupted travel to a limit position has taken place.</p>				
21, 40, 57, 75, 93, 111, 129, 147	Channel A, B, C, D, E, F, G, H, status end position up	On / Off	1 Bit	CRT
<p>Via this object, a logical 1 object value reports that the blind is in the upper final position.</p>				
22, 41, 58, 76, 94, 112, 130, 148	Channel A, B, C, D, E, F, G, H, status end position down	On / Off	1 Bit	CRT
<p>Via this object, a logical 1 object value reports that the blind is in the lower final position.</p>				

25 A8 Venetian blind actuator 980601**Parameter****Functions, objects****Functions, objects**

Configuration	identically for all channels
ON-time during direct mode	15 minutes
8-bit scene control	Yes
Object Alarm per	Channel
Monitoring time for alarm	10 minutes
Object Movement blockade per	Channel
Object Program / recall position 1, 2 per channel	Yes
Differentiation automatic / manual mode	Yes
Object Blind centrally UP / DOWN per	Channel
Object Blind centrally UP / DOWN, start channels time-shifted by	appr. 1s
Objects Status automatic mode	Yes
Object Status blind position in % per channel	Yes
Objects Status end position up / down per channel	Yes
Send end position ON / OFF	Yes
Send status objects	on change of status or using read request

Parameter	Settings
Configuration	identically each for channels A-D and E-H, identically for all channels, individually for each channel
This parameter determines whether just one window should appear for the joint and identical parameter setting of channels A-H, or whether two windows should be used at a time for identical parameter setting of channels A...D and E...H, or 8 windows for the individual parameter setting of each channel.	
ON-time during direct mode	unlimited; 5 minutes; 10 minutes; 15 minutes; 20 minutes; 30 minutes; 45 minutes; 60 minutes
This parameter is used to set whether direct mode is to be permanently switched on using the pushbutton for operating mode selection and has to be switched off again by repressing the pushbutton ("unlimited"), or whether it is switched on for a limited period and automatically switched off again after expiration of the set ON period. The limited switch-on time ensures that the bus mode cannot be permanently blocked by the direct mode. Every push of the button in direct mode leads consistently to an extension of the direct mode by the set switch-on time. After the switch-on time has elapsed, if the push button has not been pressed again, the direct mode switches off automatically and thus re-activates the bus mode (provided that communication via the EIB is possible). Start and termination of direct mode are reported via the corresponding communication object via the bus.	

Parameter	Settings
8-bit scene control	No; Yes
This parameter determines whether the actuator should be integrated into an 8-bit scene control. If yes, then the accompanying communication object and a "8-bit Scenes" parameter window are shown for the assignment of up to 8 scene numbers per channel.	
Object Alarm per	device; channel
This parameter determines whether one single alarm object should be available to have an influence on all actuator channels, or whether each actuator channel should receive its own alarm object. Whether and how to react on an alarm object set to logical 1 has to be adjusted per channel.	
Monitoring time for alarm	disabled; 1 minute; 2 minutes; 3 minutes; 4 minutes; 5 minutes; 7 minutes; 10 minutes; 15 minutes; 30 minutes; 60 minutes
This monitoring time applies, with one alarm object per channel, for all alarm objects at once. If e.g. a wind detector is faulty or the bus cable to it is disrupted, gusts of wind can lead to the damage or destruction of an exterior solar protection. To prevent this, the actuator can monitor whether the wind detector assigned to the actuator or to a channel is sending telegrams cyclically. If the setting "disabled" is assigned to the parameter "Monitoring time for alarm", the cyclical sending of the alarm object is not monitored. Otherwise, this parameter determines within which period at least one telegram with a logical 0 must be received at the alarm object. If no telegrams are received at the alarm object during the "Monitoring time for alarm", then this object is set to logical 1 inside the actuator, i.e. the blind connected to the actuator channel is moved into the set position according to the "Behaviour on alarm" parameter and remains in that position (even when alarm telegrams with a logical 0 are received cyclically again) until a telegram with a movement command is received. After a restart of the device (e.g. after mains voltage recovery), the monitoring time is only started after the first reception of the "Alarm" object.	
Object Movement blockade per	device; channel
This parameter determines whether a "Movement blockade" communication object should be available per device or per actuator channel. If a telegram with "Movement blockade = ON" is received via this channel, then the current position of the Venetian blind and its slats is frozen at the addressed channel (i.e. all commands to move the Venetian blind or adjust the slats or restore a position as well as a movement command generated via the alarm object remain ineffective and are also not stored intermediately) until a telegram with "Movement blockade = OFF" is received. If an alarm is still present at this point in time, the action configured for the alarm event is then carried out. If "direct mode" is switched on, no account of an activated move-up blockade is taken while the direct mode lasts.	

25 A8 Venetian blind actuator 980601

Parameter	Settings
Object Program / recall position 1, 2 per channel	No; Yes
This parameter determines whether the two communications objects "program / recall position 1 / 2" are to be available per actuator channel. In connection with a "scene pushbutton" up to two desired positions of blind and slats per channel can be programmed by the push of a button and also automatically recalled.	
Differentiation automatic / manual mode	No; Yes
This parameter determines whether a distinction is to be made between automatic and manual mode. If this parameter is set to "Yes", then the objects are supplemented to switch between automatic and manual mode and for the central control of all sun blind actuators as well as one object per channel to move the blind and one to adjust the slats via percentage values in automatic mode. The differentiation between automatic and manual mode is required if, for example, the blind slats are to follow up the position of the sun via commands from the weather station (sun tracking control), but the user of the room shall be able to stop this.	
Object Blind position in % per channel with standard mode	No; Yes
This parameter only appears in standard mode if the parameter "Distinction automatic / manual mode" is set to "no". It is used to set whether communication objects to adjust the blind position shall be available in standard mode. <u>Note:</u> If in standard mode "Slat position in %" objects are also desired, then this can be adjusted in the parameter window "Channels A - H" or per channel via the parameter window "Channel X".	
Object Blind centrally UP / DOWN per	device; channel
This parameter is only visible if the distinction between automatic and manual mode was desired. This parameter is used to set whether the object for a central command to move the sun blind into the specified final position is to be made available only once ("Device" setting) or per channel respectively ("Channel" setting). The "Channel" setting makes it possible that not all channels are controlled jointly with the central command, but only those channels for which this object was linked to the central command. This is required, for example, if one or more actuator channels serve to activate an externally mounted Venetian blind, but the others are used to activate an internally mounted sun blind or a roller blind to darken the room.	
Object Blind centrally UP / DOWN, start channels time-shifted by	No; appr. 0.3s; appr. 0.5s; appr. 0.7s; appr. 1s
This parameter is only visible if the distinction between automatic and manual mode was desired. Depending on the configuration, the individual channels with only one "Blind centrally UP / DOWN" object per device are switched-on staggered in time. This can prevent a high current spike as well as an increased telegram frequency.	

Parameter	Settings
Objects Status automatic mode	No; Yes
This parameter is only visible if the distinction between automatic and manual mode was desired. This parameter is used to set whether a communication object "Status automatic mode" is to be available per channel.	
Object Status blind position in % per channel	No; Yes
This parameter is only visible if either the distinction between automatic and manual mode was desired or if "Object Blind position in % per channel with standard mode" is desired. This parameter is used to set whether a communication object "Status blind position" is to be available per channel. <u>Note:</u> If in standard mode "Status slats position in %" objects are also desired, then this can be adjusted in the parameter window "Channels A - H" or per channel via the parameter window "Channel X".	
Objects Status end position up / down per channel	No; Yes; only status end position up; only status end position down
This parameter is used to set whether both or only 1 communication object "Status end position up" or "Status end position down" is to be available per channel. The object „Status end position up“ (or „Status end position down“) is only equal to log. 1 if the blind is in the top (or bottom) end position.	
Send end position ON / OFF	Yes; send only ON
This parameter is only visible if the preceding parameter is not set to "no". This parameter is used to set whether both the reaching (ON) as well as the leaving (OFF) of an end position is to be sent or whether only the reaching of an end position is to be sent.	
Send status objects	Using read request only; on change of status or using read request
Depending on the parameter setting the status objects are sent automatically every time the status is changed or only on read request.	

25 A8 Venetian blind actuator 980601**Channels A-H resp. Channel x (with Venetian blinds)**

Channels A-H	
Solar shading as	Venetian blind
Factor in-motion time of blind from end pos. up to end pos. down (basis 1s)	255
Factor in-motion time of blind from end pos. down to end pos. up (basis 1s)	255
Prolongation of in-motion time by	5 seconds
Positioning time of slats from vertical to horizontal	0.5s (max. steps = 5, min. change of value
Positioning time of slats from vertical until start of blind motion	2.0s
Slats position after blind DOWN in percent (0 - 100)	50
No. of step commands from slats position vertical to horizontal in manual mode	5
Min. change of value (in %) for slats positioning in automatic mode	3
Object Sunshine	enabled
Behaviour at sunshine = On	blind down + execute automatic commands
Behaviour at sunshine = Off	blind up + ignore automatic commands
Object Status slats position in %	Yes
Behaviour on alarm	move upwards
Behaviour at mains voltage recovery	no action
Behaviour at bus voltage failure	no action

Parameter	Settings
Solar shading as	Venetian blind; Roller shutter, awning
This parameter is used to set whether a drive for a Venetian blind or a shutter or an awning is connected to the channel. If a shutter or awning drive is connected, then the special objects and parameters for Venetian blinds and their slats are not shown.	
Factor in-motion time of blind from end pos. up to end pos. down (basis 1s)	3...255 255
The travel time of the blind from the upper to the lower limit position is set via this parameter.	
Factor in-motion time of blind from end pos. down to end pos. up (basis 1s)	3...255 255
This parameter is used to set the travel time of the blind from the lower to the upper limit position. This travel time must be at least as long or up to 20% longer than the travel time from the top to the bottom limit position.	
Prolongation of in-motion time by	No additional time; 1...20 seconds 5 seconds
This parameter is used to set whether during the movement of the blind to the limit position the set travel time is to be extended by an additional period to ensure that the blind has reached the limit position and the drive is switched off via the limit switch.	

Parameter	Settings
Positioning time of slats from vertical to horizontal	0.2s (max. steps = 2, min. change of value = 45°); ... 0.5s (max. steps = 5, min. change of value = 18°); ... 10s (max. steps = 100, min. change of value = 1°)
This parameter only appears if the "Solar shading as" parameter is set to "Venetian blind". This parameter is used to set the adjusting time of the Venetian blind slats from completely closed (=100%) to the horizontal slat position (=0%) in the range from 0.2s to 10s. Note: This time is to be determined as accurately as possible. The values behind the specified time indicate which value is permissible for the subsequent parameter „Number of step commands from slats position vertical to horizontal in manual mode“ as max. value as well as which value is permissible for the subsequent parameter „Min. change of value (in %) for slats positioning in automatic mode“ as the smallest value.	
Positioning time of slats from vertical until start of blind motion	0.3s ... 1.0s ... 12.5s
This parameter only appears if the "Solar shading as" parameter is set to "Venetian blind". This parameter is used to set the adjusting time of the Venetian blind slats from completely closed to the slat position at which the upward travel of the Venetian blind begins, in the range from 0.3s to 12.5s. Opening the slats, they can be rotated beyond the horizontal position (i.e. turned backwards so that they are again partially closed). Note: This time is to be determined as accurately as possible.	
Slats position after blind DOWN in percent (0 - 100)	0...100 50
This parameter only appears if the "Solar shading as" parameter is set to "Venetian blind". After an uninterrupted movement of the Venetian blind from the upper to the lower limit position via one of the corresponding objects, the slats are adjusted from their vertical position to the position specified in this parameter. 0% = slats completely opened (horizontal) 100% = slats completely closed (vertical) Note: With Venetian blinds it is a prerequisite that they move downwards with closed slats.	
No. of step commands from slats position vertical to horizontal in manual mode	2...255 2
This parameter is used to set the number of steps required to move the slats from the vertical to the horizontal position. This number is taken into account in the sun tracking control of the slats, i.e. the slats are only re-adjusted if the sun position has changed by a percentage value (angle) that corresponds to at least one step.	

25 A8 Venetian blind actuator 980601

Parameter	Settings
Min. change of value (in °) for slats positioning in automatic mode	0...45 3
<p>This parameter is only visible if the distinction between automatic and manual mode was set.</p> <p>This parameter is used to set by what difference (in degrees) in automatic mode a new slats position received via the "Automatic mode, slats position" object has to differ from the current one so that the new slats position is approached. The value set here is to correspond to a change of the slats position set in a shutter control unit or a weather station that leads to the sending of a new slats position.</p> <p>If the value 0 as well as 1 or the value 255 are received via the "Automatic mode, slats position" object, then the corresponding limit is always approached. If this results in the smallest possible activation time of the Venetian blind drive of 50ms, then it depends on the drive used whether this short impulse leads to a change in position or not.</p>	
Object Sunshine	disabled; enabled
<p>This parameter is only visible if the distinction between automatic and manual mode was desired.</p> <p>This parameter is used to enable the "Sunshine" object for this channel (i.e. that this object can have an effect on the channel if the channel is in automatic mode) or to disable it (i.e. that this object is not taken into account for this channel).</p> <p>The corresponding communication object is only available if it is enabled here.</p>	
Behaviour at sunshine = On	execute autom. commands + move to stored position; blind down + execute automatic commands
<p>This parameter only appears if the "Object Sunshine" parameter is set to "enabled". It is used to set how an actuator channel is to act when receiving a telegram for the "Sunshine" object with the object value "1", as long as automatic mode has been activated for it and the object has been enabled. If automatic mode has not been activated for the affected channel, then the telegram for this channel is ignored.</p> <p>"blind down + execute automatic commands": The Venetian blind is moved into the lower limit position, the slats may be rotated into the configured position, the execution of automatic commands is released and subsequent automatic commands are awaited. If, while moving into the lower limit position, a telegram with a Venetian blind or slats position in percent is received, then this new telegram is carried out right away.</p> <p>"execute autom. commands + move to stored position": The stored Venetian blind position is approached. Only the execution of automatic commands is released and subsequent automatic commands are awaited.</p>	

Parameter	Settings
Behaviour at sunshine = Off	blind up + ignore automatic commands; ignore automatic commands
<p>This parameter only appears if the "Object Sunshine" parameter is set to "enabled". It is used to set how an actuator channel is to act when receiving a telegram for the "Sunshine" object with the object value "0", as long as automatic mode has been activated for it and the object has been enabled. If automatic mode has not been activated for the affected channel, then the telegram for this channel is ignored.</p> <p>"Ignore automatic commands": The Venetian blind position remains unchanged. Only the execution of automatic commands is blocked, i.e. automatic commands for the affected channel are ignored and not carried out as long as "Sunshine = off" is set.</p> <p>"blind up + ignore automatic commands": The Venetian blind is moved into the end position up and the execution of automatic commands is blocked, i.e. automatic commands for the affected channel are ignored and not carried out as long as "Sunshine = off" is set. If, while moving into the upper limit position, a telegram with a Venetian blind or slat position in percent is received, then this new telegram is already ignored.</p>	
Object Status slats position in %	No; Yes
<p>This parameter only appears if the "Solar shading as" parameter has been set to "Venetian blind" and also a distinction between automatic and manual mode or a "Slat position in %" object was desired in standard operation mode.</p> <p>This parameter is used to set whether a communication object "Status slats position" is to be available for the channel (or for all channels).</p>	
Behaviour on alarm	move upwards; move downwards; ignore alarm (no action)
<p>This parameter is used to set how the actuator channel is to act when receiving an alarm or when the cyclical message that there is no pending alarm is omitted.</p>	
Behaviour at mains voltage recovery	move upwards; move downwards; no action
<p>This parameter is used to set how the actuator channel is to act when the mains voltage is recovered.</p>	
Behaviour at bus voltage failure	move upwards; move downwards; no action
<p>This parameter is used to set how the actuator channel is to act when the bus voltage supply fails (without simultaneous mains voltage failure).</p>	

25 A8 Venetian blind actuator 980601**Channels A-H resp. Channel x (with Roller shutter, awning)**

Channels A-H	
Solar shading as	Roller shutter, awning
Factor in-motion time of blind from end pos. up to end pos. down (basis 1s)	255
Factor in-motion time of blind from end pos. down to end pos. up (basis 1s)	255
Prolongation of in-motion time by	5 seconds
Factor in-motion time for re-opening a roller shutter a little (basis 0.1s)	0
Move stepwise (in-motion time for 1 step)	0.2s
Object Sunshine	enabled
Behaviour at sunshine = On	blind down + execute automatic commands
Behaviour at sunshine = Off	blind up + ignore automatic commands
Behaviour on alarm	move upwards
Behaviour at mains voltage recovery	no action
Behaviour at bus voltage failure	no action

Factor in-motion time for re-opening a roller shutter a little (basis 0.1s)	0...255 0
This parameter only appears if the "Solar shading as" parameter is set to "roller shutter, awning". After an uninterrupted movement of the roller shutter from the upper into the lower limit position, it can be moved up again a little, so that light can get into the room through the spaces in between. If the value is "0", then the roller shutter is not moved up again.	
Move stepwise (in-motion time for 1 step)	No; 0.1s; 0.2s; 0.3s; ... 1s
This parameter only appears if the "Solar shading as" parameter is set to "roller shutter, awning". This parameter is used to set whether for a roller shutter, after stopping a movement with a brief push of the button, any subsequent brief push of the button is to be ignored ("No") or whether it should move the roller shutter by one step. If Yes, then it is set how long the drive is to be switched on for one step.	

Note: All remaining parameters correspond to the previous descriptions with a setting of "Solar shading as" to "Venetian blind".

8-bit Scenes

8-bit scenes	
Scene assignments for channel	A
Channel A: Link 1 with scene [1...64] (0=disabled)	0
Channel A: Link 2	0
Channel A: Link 3	0
Channel A: Link 4	0
Channel A: Link 5	0
Channel A: Link 6	0
Channel A: Link 7	0
Channel A: Link 8	0

Scene assignments for channel	A; B; C; D; E; F; G; H
This parameter is used to set for which channel the scene assignments are to be shown so that they can potentially be changed.	
Channel A: Link 1 with scene [1...64] (0=disabled)	0-64, 0
This parameter can be used to link the selected channel A with a scene number in the range from 1 to 64. "0" in this case means "no scene assigned" (link not used).	
Notes:	
If a scene is called-up before the positions of blind and slats have been programmed (stored) for this scene and this channel, then the affected channel is not taken into account.	
Successfully storing a position is only possible if the travel time of the blind and the adjustment time of the slats have been specified and the status objects for the blind and slats position have been synchronised with a reference movement into a final position.	
If automatic mode is activated (automatic mode = on), then programming or recalling a scene automatically leads to switching to manual mode (automatic mode = Off).	
Channel A: Link 2	0-64, 0
see channel A, link 1	

and so on until

Channel A: Link 8	0-64, 0
see channel A, link 1	