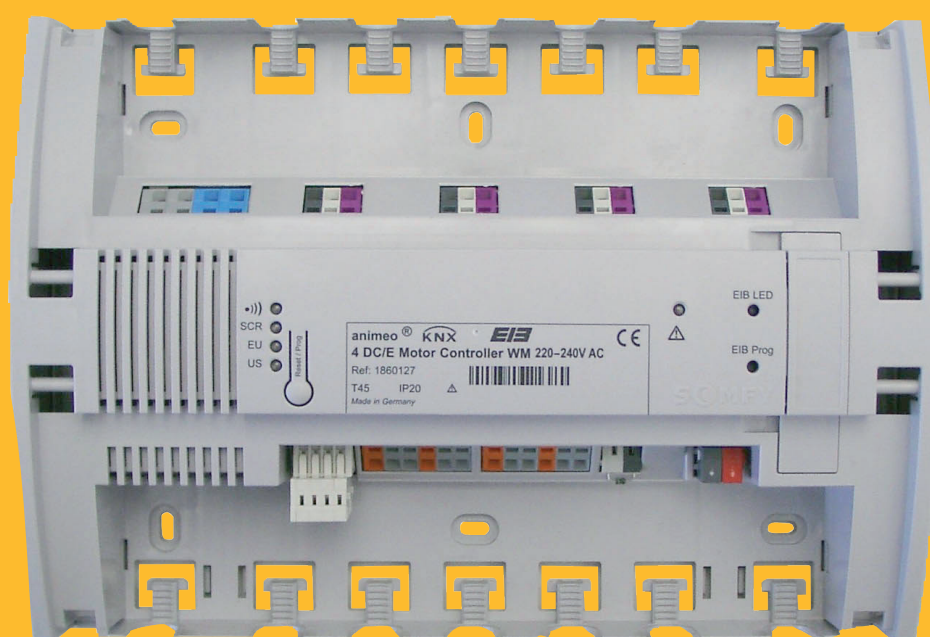


animeo® KNX 4 DC/E Motor Controller WM 220-230V AC Operating manual



Ref. 1860127

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This manual applies to the KNX 4 DC/E Motor Controller WM/DRM 220 – 230 V AC starting from version B !!!



Before installation, please read the safety instructions carefully. Failure to respect these instructions automatically invalidates warranty and all liability claims against SOMFY (e.g. wrong installation, maloperation etc.). The product must be installed by a qualified electrician! All connections have to be disconnected from mains before mounting! Make precautions against switching on by accident!

The installation of Somfy products has to be made at easily accessible places only. For maintenance and repairs which are difficult to perform because of bad accessibility (e.g. cluttered or extensive cluttered floors, installation behind lamps or behind façades) additional costs cannot be claimed against the seller.

A proper functioning of the Motor Controllers and motors is assured only if the animeo DC or DC/E Motor Controllers are combined with compatible Somfy motors or with motors which are expressly approved by Somfy for this purpose. In case the buyer should use motors or DC power supplies made by other producers in combination with such made by Somfy, the warranty and responsibility of Somfy will be excluded both for the Somfy product itself and its suitability as part of a functioning system as a whole. The checking and decision whether external products are suitable without restraint is exclusively within buyer's own responsibility.

The KNX 4 DC/E Motor Controller WM 220 – 230 V AC is for controlling motors in the Concept 25 motor series (24 V DC). It is suited for the controlling of up to four individually parameterable motors for Venetian blinds or roller blinds.

This Motor Controller, thanks to its integrated current supply, enables low installation costs. In combination with the Concept 25 Encoder Motor and the CTS Roll-up System Motor it facilitates especially an exact positioning of the slats and an exact positioning of the Venetian blinds. Additionally, the combination of the Motor Controller with the Concept 25 Encoder Motor offers the advantage of a longer life expectancy through protection of the Venetian blinds.

By using the animeo RTS radio module, four motors can be controlled via remote individually and across devices.

Functions and advantages

- Time saving through easy-installation, for example, with spring clips, pull relief with cable binders, sufficient clip space ...
- Less wiring and space needed thanks to integrated current supply.
- A group input can be used to control all four motors independent of the ETS programming.
- Testing of running direction of the motors without ETS possible.
- The device can be used in the factory-delivered state without necessary programming via the ETS.
- The local push button inputs can be used as conventional push buttons or, configured via ETS software as universal KNX binary inputs. In the first five seconds after switching on the device, the push button inputs act as conventional push buttons. They are available as binary inputs after the KNX module has been started up.
- User-friendly and intuitive parameter settings in the ETS software.
- Intelligent switching between manual and automatic operation to guarantee excellent user-friendliness and energy savings.
- Positioning messaging of the connected motors during the move and when reaching the upper and lower end positions.
- Two free configurable security levels per motor output.
- Excess current and short circuit identification with LED display and messaging via object for each individual motor.
- LED error display when the set operational speed is not reached.
- Free configurable action at mains power return.
- Automatic cascading of the motor outputs to limit the peak current in case of mains power return and bus safety functions.
- Plug and Play! At any time extendable with the animeo RTS radio module (ref. 1860105) or animeo EnOcean Receiver (ref. 1860220). Without additional wiring the four motors, using Somfy RTS Technology, can be controlled individually per remote.
- In buildings where radio technology can not be used, such as in hospitals, radio control is also possible through animeo infrared technology.

Special advantages when using the Encoder Motor

- Settable end position of the Venetian blinds.
- Settable virtual upper end position to guarantee a visually uniform façade.
- Separate settable UP and DOWN speeds to optimise noise levels.
- Settable slats tilting speeds.
- Longer life expectancy of the end product, e.g. Venetian blinds, thanks to soft-stop function in the upper and lower end positions.
- For exact positioning of the Venetian blinds, the cycle for reference moves are freely definable per motor.
- Exactness of the Venetian blinds orientation in combination with several encoder motors.
- High level of user comfort using the wheel on the Modulis RTS hand transmitter.

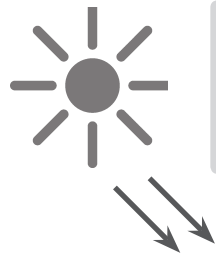


Full parameter setting and programming is only possible when there is a power supply and KNX bus voltage on the KNX Motor Controller. When only KNX bus voltage is present, only the physical address can be programmed.

All indications in the manual marked with * refers to the following terms:

Manual order	A manual order is a command generated by a local conventional switch or by a Somfy RTS radio hand transmitter. A telegram received on the objects 0-7 (bit orders) is also understood as manual command.
Automatic order	A telegram received on the objects 8-15 (byte orders) is understood as an automatic order.
US switch ergonomics	With this parameter it is ensured that the Venetian blind is controlled in the US ergonomics over the local push button inputs or over the Somfy RTS radio hand transmitter. Short pressing of the push button (< 0.5 s): A move command is carried out. Long pressing of the push button (> 0.5 s): A turn command is carried out, as long as the push button is pressed. When released, the turn command is stopped. If the current position of the Venetian blind is beyond the turn, a move command is carried out with pressed push button.
EU switch ergonomics	With this parameter it is ensured that the Venetian blind is controlled in the EU ergonomics over the local push button inputs or over the Somfy RTS radio hand transmitter. Short pressing of the push button (< 0.5 s): A turn step is carried out. Long pressing of the push button (> 0.5 s): A turn command is carried out, as long as the push button is pressed. If the current position of the Venetian blind is beyond the turn, a move command is carried out.
Screen switch ergonomics	With this parameter it is ensured that the end product is controlled in Screen ergonomics over the local push button inputs or over the Somfy RTS radio hand transmitter. Short pressing of the push button when the end product is moving: A stop command is carried out. Long pressing of the push button when the end product is not moving: A drive command is carried out.  This ergonomic is used to control screens, roller blinds, awnings and windows.
DC Motors without encoder	DC Motors without encoder have a two-wire connecting cable (white, gray).
DC Motors with encoder	DC Motors with encoder have a three-wire connecting cable (white, gray, purple).
Running time (mode selection DC)	The time, the corresponding end product needs from the upper end position to the lower end position. The time for the UP move and for the DOWN move can be individually parametered.
Tilting time (mode selection DC)	The time, necessary for the slats to make one complete turn.
Running length (mode selection DCE)	The length, the corresponding end product needs from the upper end position to the lower end position. The length for the UP move and for the DOWN move can be individually parametered.
Turn impulse (mode selection DCE)	Defines the time which is necessary for a complete slats turn.
Reference move (mode selection DCE)	A reference move is carried out with each 20th UP command after programming the end positions. Here, the Venetian blinds move to the reference position (see 1.2). The frequency of the reference move is settable via the ETS.

1.1 Slat position



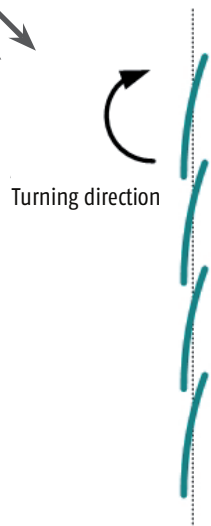
Venetian blind 90° / - 90°
 Angle: 90°
 Turn: 0 %
 KNX byte value: 255 or 0

Venetian blind 90° / - 90°
 Angle: 0°
 Turn: 50 %
 KNX byte value: 127

Venetian blind 90° / - 90°
 Angle: - 90°
 Turn: 100 %
 KNX byte value: 0 or 255

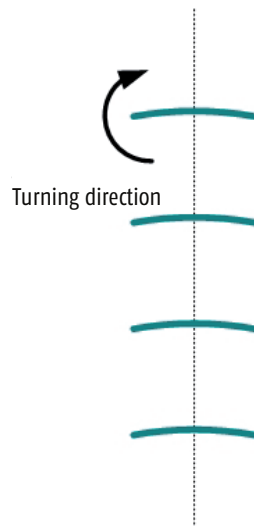
Venetian blind 90° / 0°
 Angle: 90°
 Turn: 0 %
 KNX byte value: 255 or 0

Venetian blind 90° / 0°
 Angle: 0°
 Turn: 100 %
 KNX byte value: 0 or 255



Max. closed
Venetian blind 90°/0°

Max. closed
Venetian blind 90°/- 90°



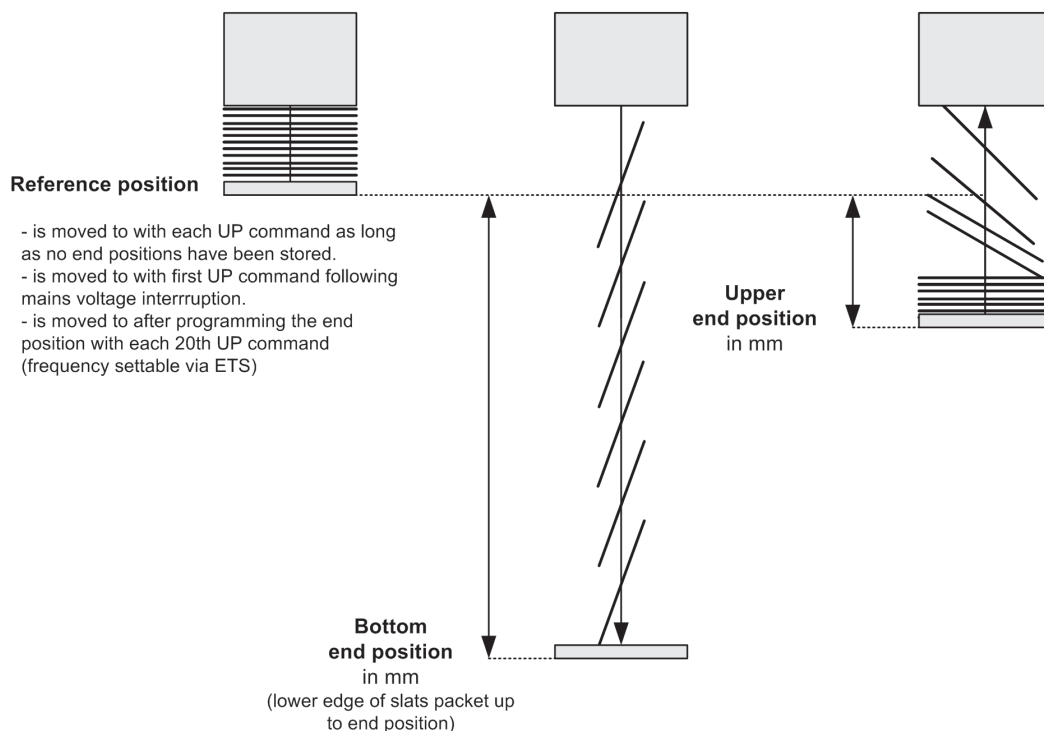
Max. turned
Venetian blind 90°/0°

50 % turned
Venetian blind 90°/- 90°

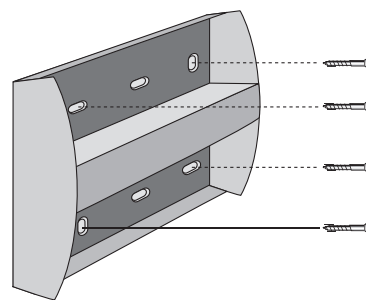
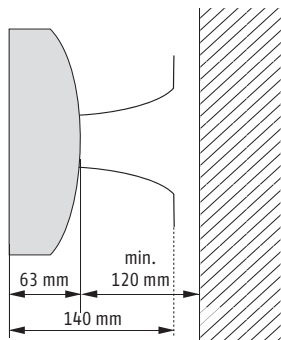


Max. turned
Venetian blind 90°/- 90°

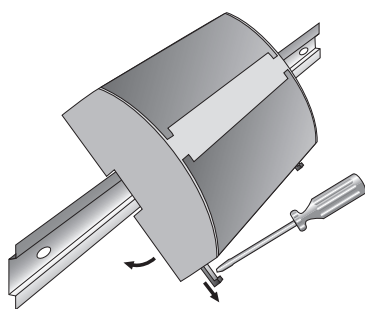
1.2 Screen position for DC Encoder Motors (LW 25 E83)



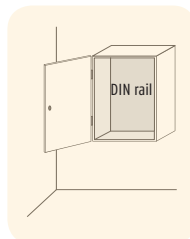
2 Assembly



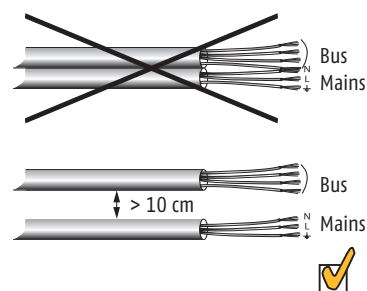
Mounting of the Motor Controller 4 DC/E WM



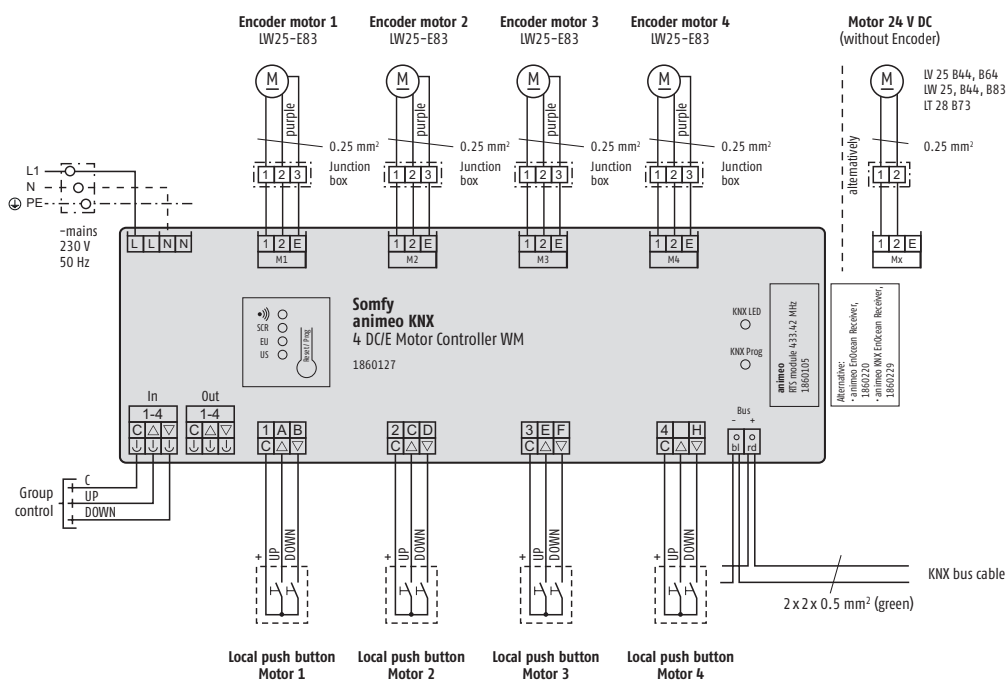
Switch box



Complete wiring and connect power supply



3 Wiring diagram



Local push button inputs can be used as binary inputs!

3.1 Motor outputs

Max. current per output: 500 mA.

Compatibel with the following Somfy motors in combination with the CTS 25 enrolling system for Venetian blinds:



LV 25-B44, -B64
DC-Mode
2 wires



LW 25-B44, -B83
DC Mode
2 wires



LW 25-E83
DCE- Mode
3 wires



LT 28-B73
DC Mode
2 wires



Stehle
J 101
2 wires

⚠ Control of non Somfy motors only on request

3.2 Cabling



⚠ As soon as the 230 V and the KNX bus voltage supply are attached, the "US" LED blinks regularly. The device is operational when the "US" LED is blinking continuously.

CABLE

Connections to	Cables	Twisted pairs	Max. distance
Motors	Min.: 3 x 0.28 mm ² /22 AWG Max.: 3 x 2.5 mm ² /13 AWG	—	20 m/65 ft
Switches	Min.: 3 x 0.28 mm ² /22 AWG Max.: 3 x 2.5 mm ² /13 AWG	Recommended	100 m/330 ft
Group control	Min.: 3 x 0.28 mm ² /22 AWG Max.: 3 x 1.5 mm ² /15 AWG	Recommended	50 m/165 ft
KNX Bus	2 x 0.5 mm ² /20 AWG	Required, following KNX topology guidelines	
220 - 230 V AC	Min.: 3 x 1.5 mm ² /15 AWG Max.: 3 x 2.5 mm ² /13 AWG	—	

3.3 Checking the move directions of the end products

Group control of the motors 1 - 4 over the group control input

The move directions of the motors can be checked via the group inputs. All four motor outputs are switched simultaneously. This input can be blocked in the ETS parameters. In the event of bus power failure, it is always freed to allow emergency operation.

⚠ When starting up, make absolutely sure that the motors move in the right direction. This check can be carried out by making a wiring bridge at the group input.



Check the correct move direction of the end product

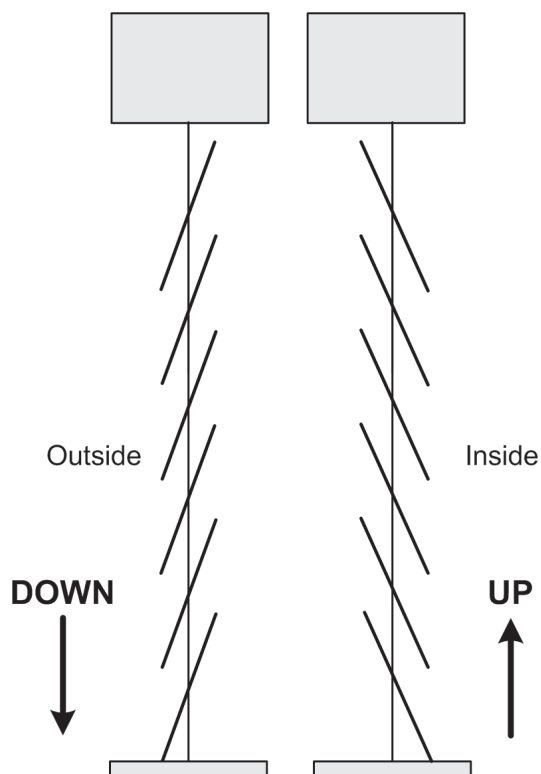
DOWN: The end product moves down (bridge between C + ▼)
 STOP: The end product stops (bridge between C + ▼ + ▲)
 UP: The end product moves upwards (C + ▲)

3.4 Checking the turning direction of the slats

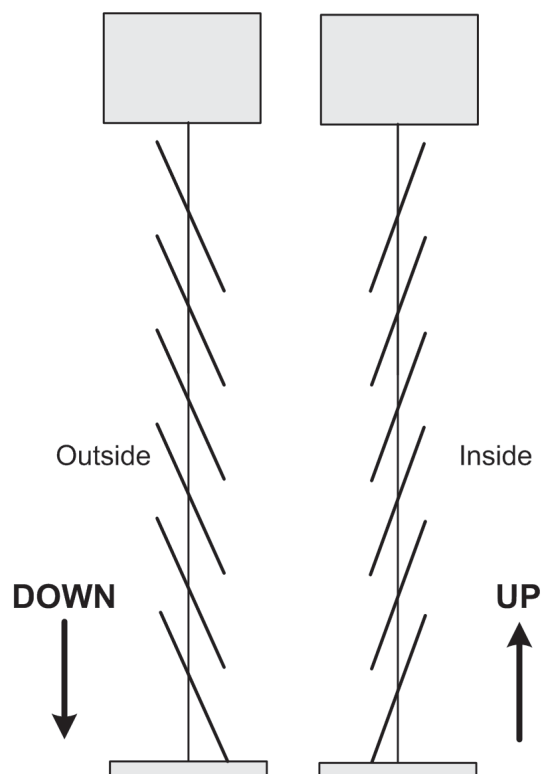
If the Venetian blind has been moved down completely or partly, pay attention to the slats position when checking the turning direction (respect the manufacturer's instructions!).

If the slats position according to manufacturer's description does not match to the move direction, only after first contacting the Venetian blind manufacturer can the Venetian blinds be corrected. Then, the turning direction can be checked.

„Solar protection application“



„Decorative application“



4 Settings on delivery status

The KNX 4 DC/E Motor Controller can be used in the delivery state also without prior programming by the ETS software. Practical presets are implemented in the device. These settings apply to all four motor outputs.

- **Running and tilting times/lengths***

In the delivery state or after setting back to the delivery state, the predefined running and tilting times/lengths* are already preset.

- **Mode selection DCE**

A running length* of approx. 35 cm is preset.

The turning impulses* are preset to 110 (suitable for 25 mm slats in combination with CTS winding system).

The impulses for mechanical compensation are preset to 0.5 seconds.

- **Mode selection DC**

A running time of 3 minutes and a turning time of 3 seconds are preset.

The time for mechanical compensation is preset to 0.5 seconds.

- **Connection of local push buttons possible**

The local push button inputs are assigned directly to the motor outputs: push button 1 controls motor output 1.

Through wire bridges on the push button inputs, the motor outputs can be controlled as desired.

* ⚠ See chapter 1 definitions

4.1 Function of the Reset/Prog button

⚠ The basic settings in the KNX Motor Controller can be made using this push button. These basis settings are possible only in the delivery state, before the device with the ETS was programmed, or after the device was unassigned by the ETS. The basis settings are overwritten by the settings in the ETS.

4.2 Selection of different user ergonomics

Using the Reset/Prog button the press button user ergonomics for the local push button inputs or Somfy RTS radio hand transmitter can be determined. These settings are possible only in the delivery state, before the device is programmed with ETS software or after the device is unassigned with the ETS.

As soon as the device with the ETS is programmed, no further settings of the user ergonomics can be made via the Reset/Prog button. When the device is unassigned by the ETS, the adjusting of the user ergonomics is possible again via the Reset/Prog button.

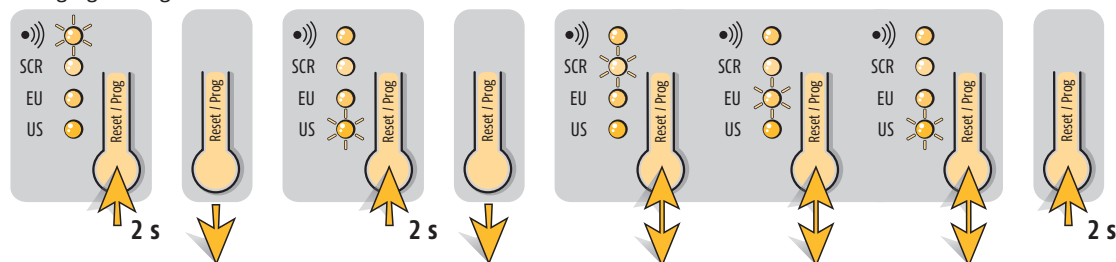
⚠ The selection of the user ergonomics must match with the corresponding end product.



-))) = Configuration of the animeo RTS radio module
- SCR = Screen ergonomics*
- EU = Venetian blind, EU ergonomics*
- US = Venetian blind, US ergonomics*

* see chapter 1 definitions

Changing the ergonomics:



The delivery state is Venetian blind with EU ergonomics

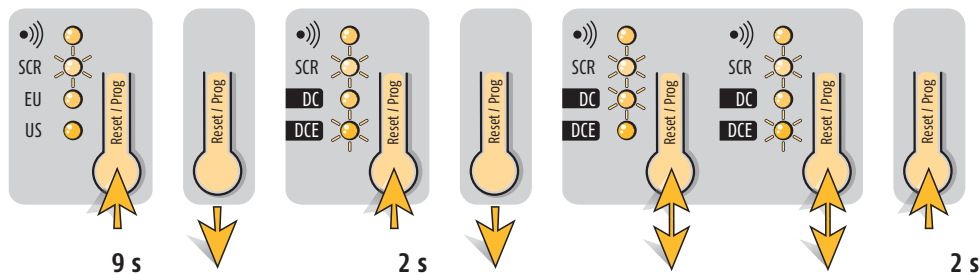
To change to different ergonomics press briefly the Reset/Prog button. Repeat till such time as the desired LED shines.

Save and exit the setting mode

4.3 Mode selection DC or DCE

Type of motors that can be controlled (⚠ Preset mode is DCE):

- DC
- DCE (when a LW25-E3 Motor is used, it is identifiable by the three wires (white, grey, purple))

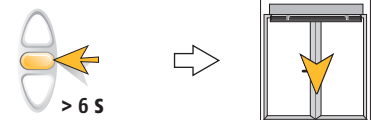
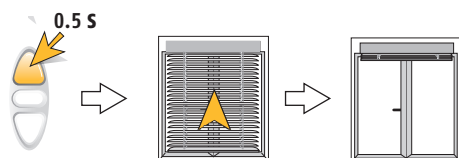


The motor can be damaged through an unauthorised function mode!
The mode for all four motor outputs are commonly defined!

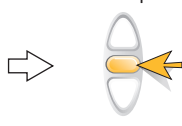
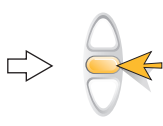
4.4 Manual setting of the running and tilting times

The running and tilting times per motor output can be set via local conventional push buttons. These settings are possible only in the delivery state before the device has been programmed with the ETS. As soon as the device with the ETS is programmed, the running and tilting times can no longer be set via local conventional push buttons. Manually learned-in durations of running and tilting times are overwritten when programmed with ETS. When the device is unassigned by the ETS, the adjusting of the running and tilting times via local conventional push buttons can be done again.

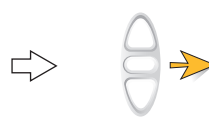
⚠ Alternatively to the conventional push buttons, the settings can also be done using the Somfy RTS Transmitter and animeo RTS Radio Module (Ref. 1860105). A setting using animeo KNX RTS Receiver (Ref. 1860191) resp. animeo EnOcean Receiver (ref. 1860220) or animeo KNX EnOcean Receiver (ref. 1860229) and EnOcean transmitter is not possible!



⚠ Press immediately when lower end position is reached



⚠ Hold Stop during the complete turn



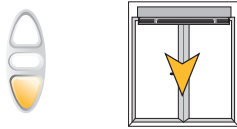
4.5 Manual setting of the intermediate position 1

Intermediate position 1 can also be programmed over a conventional local switch or by radio hand transmitters individually per motor output. At the same time, it is possible to carry out the intermediate position 1 via settings in the ETS parameters. Prior to this, the running and tilting times must be learned-in!

⚠ Alternative to the conventional push button the settings can also be implemented with Somfy RTS transmitter and animeo RTS radio module (ref. 1860105). Settings with animeo KNX RTS Receiver (ref. 1860191) and Somfy RTS transmitter resp. animeo EnOcean Receiver (ref. 1860220) or animeo KNX EnOcean Receiver (ref. 1860229) and EnOcean transmitter are not possible!

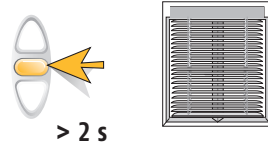
⚠ The last learned-in position is valid.

1 Move screen to desired position



With conventional unlocked push buttons the stop order can be generated by pressing the UP and DOWN button at the same time.

2 Save position



> 2 s

1



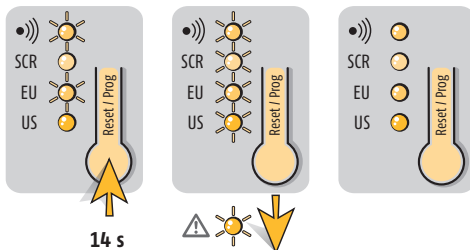
0,5 s

The saved position is moved to.

⚠ When using DCE motors (LW25-E83) a complete UP command must be executed after learning-in the running and tilting times (lengths) so that the according blind can find its upper reference point.

4.6 Resetting to delivery state

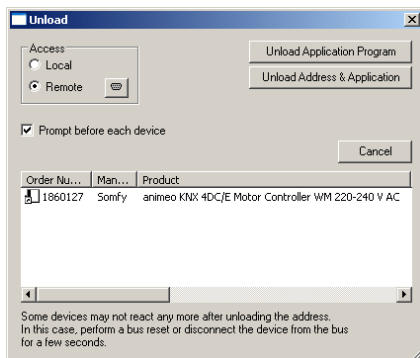
1. When the device has not been programmed with the ETS software.



Full RESET:

The settings made via the Reset/Prog push button, local conventional push buttons or radio transmitters can be reset over the Reset/Prog button by pressing 10 seconds.

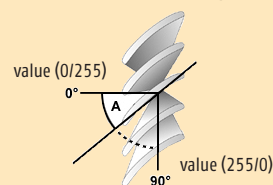
2. When the device has been programmed with the ETS software.



When the device has been programmed with the ETS software, a reset in the delivery state is no longer possible via the Reset/Prog button. Over the function "Unload" in the ETS, all settings of the device can be set back in the delivery state. The Reset/Prog button is then freed again.

At the most, 160 communication objects are available for use, but not all at once. A maximum of 250 group addresses can be connected.

No.	Object name	Type	DPT_ID	Description
1	Motor 1 UP/DOWN, CLOSE/OPEN	1 Bit	1.001	If a telegram with the value "0" is received on this communication object, the corresponding blind is moved upwards or a window is closed. If a telegram with the value "1" is received, the corresponding blind is moved down or a window is opened. At the end of the set running time for UP or DOWN direction or the running time for opening or closing of the window, the relays of the outputs are freed.
2	Motor 2 UP/DOWN, CLOSE/OPEN	1 Bit	1.001	
3	Motor 3 UP/DOWN, CLOSE/OPEN	1 Bit	1.001	
4	Motor 4 UP/DOWN, CLOSE/OPEN	1 Bit	1.001	
5	Motor 1 STEP/STOP	1 Bit	1.001	With Venetian blinds: If the Venetian blind is moving, the move is stopped with the receiving of a telegram on one of these communication objects, no matter whether "0" or "1" is received. If the Venetian blind is stationary, a turn is carried out. In addition, the slats turn CLOSED with the receiving of a telegram with the value "1" and UP with the receiving of a telegram with the value "0". The duration of the turning step is defined in the parameter settings. With vertical awnings, roller shutters, awnings and windows: When one of the end products is moving, the move is stopped with the receiving of a telegram on one of these communication objects, no matter whether "0" or "1" is received. If one of these end products is not moving and a telegram is received on one of these communication objects, then no operation is carried out.
6	Motor 2 STEP/STOP	1 Bit	1.001	
7	Motor 3 STEP/STOP	1 Bit	1.001	
8	Motor 4 STEP/STOP	1 Bit	1.001	
9	Motor 1 Position UP/DOWN	1 Byte	5.004	If a telegram is received on one of these communication objects, the corresponding blind will move to the position which is defined by the received value "0" = upper/"255" = lower. With Venetian blinds: When the position is reached, the same slats angle is moved to at which the Venetian blind was before. ⚠ Between the receiving of a telegram on the objects 8–11 and the receiving of a telegram on the objects 12–15, a temporary time lapse of 2 seconds must be taken into consideration.
10	Motor 2 Position UP/DOWN	1 Byte	5.004	
11	Motor 3 Position UP/DOWN	1 Byte	5.004	
12	Motor 4 Position UP/DOWN	1 Byte	5.004	
13	Motor 1 Slat position	1 Byte	5.004	With Venetian blinds: If a telegram is received on one of these communication objects, the corresponding slats will move to the position which is defined by the received value. If a Venetian blind is moving and receives a value on the corresponding object, the position of the slats is moved to only when the move has been completed. Depending on the parameter settings on the card index "General" the position is defined as follows: "255" = slat maximal closed/ "0" = slat maximal turned or "0" = slat maximal closed / "255" = slat maximal turned
14	Motor 2 Slat position	1 Byte	5.004	
15	Motor 3 Slat position	1 Byte	5.004	
16	Motor 4 Slat position	1 Byte	5.004	
17	Motor 1 Slow movement	4 Bit		If a telegram is received on one of these communication objects the Venetian blind slats move either slowly to maximal closed or maximal turned position. The slats turning speed is parametered on the card "Motor 1 ... 4". This function is fulfilled by a longer operating of a push button sensor, application "dimming". ⚠ These objects can also be controlled with conventional push buttons when local push button inputs of the Motor Controller are used as universal binary inputs (basis function "dimming").
18	Motor 2 Slow movement	4 Bit		
19	Motor 3 Slow movement	4 Bit		
20	Motor 4 Slow movement	4 Bit		



No.	Object name	Type	DPT_ID	Description
21	Motor 1 Move to IP 1	1 Bit	1.001	If a telegram with the value "1" is received on one of these communication objects, the corresponding blind moves to the ETS parametered per local switch, or to the radio hand-transmitted, learned-in intermediate position (IP) 1. In addition, the learned-in position is valid. With the receiving of a telegram with the value "0" on one of these communication objects, the blinds 1-4 move to the upper end position.
22	Motor 2 Move to IP 1	1 Bit	1.001	
23	Motor 3 Move to IP 1	1 Bit	1.001	
24	Motor 4 Move to IP 1	1 Bit	1.001	
25	Motor 1-4 Move to IP 1	1 Bit	1.001	If a telegram with the value "1" is received on this communication object, the blinds 1-4 move to the ETS parametered per local switch, or to the radio hand-transmitted, learned-in intermediate position 1. In addition, the learned-in position is valid. With the receiving of a telegram with the value "0" on this communication object, the blinds 1-4 move to the upper end position.
26	Motor 1 Move to IP 2	1 Bit	1.001	If a telegram with the value "1" is received on one of these communication objects, the corresponding blind moves to the intermediate position 2 parametered in the ETS parameters. With the receiving of a telegram with the value "0" on one of these communication objects, the corresponding blind moves to the upper end position.
27	Motor 2 Move to IP 2	1 Bit	1.001	
28	Motor 3 Move to IP 2	1 Bit	1.001	
29	Motor 4 Move to IP 2	1 Bit	1.001	
30	Motor 1-4 Move to IP 2	1 Bit	1.001	If a telegram with the value "1" is received on this communication object, the blinds move to the intermediate position 2 parametered in the ETS parameters. With the receiving of a telegram with the value "0" on this communication object the blinds 1-4 move to the upper end position.
31	Motor 1-4 Reference Move	1 Bit		If a telegram with the value "1" or "0" is received on this communication object, a reference move will be generated for the motor 1 - 4. △ Explanation "reference move" see chapter 1 definitions.
32	Motor 1 Security, low prio	1 Bit	1.001	If a telegram with the value "1" is received on one of these communication objects, the corresponding blind moves to the position parametered in the ETS parameters. With the receiving of a telegram with the value "0" on one of these communication objects, no operation is carried out. Only when "Repeat last telegram after security (Yes)" has been selected in the ETS parameters, can the operation for the corresponding blind be carried out. If one of these communication objects is activated by a telegram with the value "1" and on one of the communication objects 37-40 (Security, high prio) a telegram is received with the value "1", the corresponding blind move to the position parametered in the ETS (Security, high prio).
33	Motor 2 Security, low prio	1 Bit	1.001	
34	Motor 3 Security, low prio	1 Bit	1.001	
35	Motor 4 Security, low prio	1 Bit	1.001	
36	Motor 1-4 Security, low prio	1 Bit	1.001	If a telegram with the value "1" is received on this communication object, the blinds 1-4 move to the position parametered in the ETS parameters. With the receiving of a telegram with the value "0" on this communication object no operation is carried out. Only when "Repeat last telegram after security (Yes)" has been selected in the ETS parameters can the operation for the corresponding blinds 1-4 be carried out. If one of these communication objects is activated by a telegram with the value "1" and on the communication object 41 (Security, high prio) a telegram is received with the value "1", the blinds 1-4 move to the position parametered in the ETS (Security, high prio).
37	Motor 1 Security, high prio	1 Bit	1.001	If a telegram with the value "1" is received on one of these communication objects, the corresponding blind moves to the position parametered in the ETS parameters. With the receiving of a telegram with the value "0" on this communication object no operation is carried out. Only when "Repeat last telegram after security (Yes)" has been selected in the ETS parameters can the operation for the corresponding blind be carried out. In this case, when an object for "Security, low prio" is activated ("1"), the corresponding parametered position will be moved to.
38	Motor 2 Security, high prio	1 Bit	1.001	
39	Motor 3 Security, high prio	1 Bit	1.001	
40	Motor 4 Security, high prio	1 Bit	1.001	

No.	Object name	Type	DPT_ID	Description
41	Motor 1-4 Security, high prio	1 Bit	1.001	If a telegram with the value "1" is received on this communication object, the blinds 1-4 move to the IP 2 parametered in the ETS parameters. With the receiving of telegram with the value "0" on this communication object no operation is carried out. Only when "Repeat last telegram after security (Yes)" has been selected in the ETS parameters can the operation for the blinds 1-4 be carried out. In this case, when an object for "Security, low prio" is activated ("1"), the corresponding parametered position will be moved to.
42	Motor 1 Error indication ¹⁾	1 Bit		With this communication object an error for the corresponding motor can be signalled. When an error occurs, a telegram with the value "1" is sent. When the error has been corrected, a telegram with the value "0" is sent. The following errors are identified: • Short circuit on the motor output or at least a wire is not connected. • Encor wire (purple) is connected incorrectly on the motor output (e.g. M1 connector 1 or 2). • A DCE motor is connected, the Motor Controller is however in the DC mode.
43	Motor 2 Error indication ¹⁾	1 Bit		
44	Motor 3 Error indication ¹⁾	1 Bit		
45	Motor 4 Error indication ¹⁾	1 Bit		
	¹⁾ When connecting the motor an error is set. This can be removed by resetting the supply voltage.			
46	Motor 1 Feedback UP / DOWN	1 Byte	5.004	Through these communication objects, the actual position, based on the learned-in running time (UP / DOWN direction) of the corresponding blind, is sent to the bus. This kind of sending (on demand, status change, cyclic) is set in the ETS parameters. "0" = UP / "255" = DOWN
47	Motor 2 Feedback UP / DOWN	1 Byte	5.004	
48	Motor 3 Feedback UP / DOWN	1 Byte	5.004	
49	Motor 4 Feedback UP / DOWN	1 Byte	5.004	
50	Motor 1 Feedback Slat	1 Byte	5.004	Through this communication objects, the actual slats position, based on the learned-in tilting time, is sent to the bus. This kind of sending (on demand, status change, cyclic) is set in the ETS parameters. The position, dependent of parameter settings on the menu list "General" is defined as follows: "255" = slat maximal closed / "0" = slat maximal turned or "0" = slat maximal closed / "255" = slat maximal turned
51	Motor 2 Feedback Slat	1 Byte	5.004	
52	Motor 3 Feedback Slat	1 Byte	5.004	
53	Motor 4 Feedback Slat	1 Byte	5.004	
54	Motor 1-4 Status positions	1 Bit	1.001	If a telegram with the value "1" or "0" is received on this communication object, the current status positions of the corresponding blinds are sent to the bus (objects 46-53).
55	Motor 1 Upper end position	1 Bit	1.001	Through these communication objects a telegram with the value "1" for the corresponding blind is sent when the upper end position is reached. When leaving the upper end position of the corresponding blind, a telegram with the value "0" is sent. The upper and lower end position is determined by the parametered running times.
56	Motor 2 Upper end position	1 Bit	1.001	
57	Motor 3 Upper end position	1 Bit	1.001	
58	Motor 4 Upper end position	1 Bit	1.001	
59	Motor 1-4 Upper end position	1 Bit	1.001	Through this communication object a telegram with the value "1" for the blinds 1-4 is sent when all four blinds have reached the upper end position. When all 4 blinds leave the upper end position, a telegram with the value "0" is sent. The upper and lower end position is determined by the parametered running times.
60	Motor 1 Lower end position	1 Bit	1.001	Through this communication objects a telegram with the value "1" for the corresponding blind is sent when all four blinds have reached the lower end position. When leaving the lower end position of the corresponding motor, a telegram with the value "0" is sent. The upper and lower end position is determined by the parametered running times.
61	Motor 2 Lower end position	1 Bit	1.001	
62	Motor 3 Lower end position	1 Bit	1.001	
63	Motor 4 Lower end position	1 Bit	1.001	

No.	Object name	Type	DPT_ID	Description
64	Motor 1-4 Lower end position	1 Bit	1.001	Through this communication object a telegram with the value "1" is sent for the blinds 1-4 when all four blinds have reached the lower end position. When the corresponding blinds leave the lower end position, a telegram with the value "0" is sent. The upper and lower end position is determined by the parametered running times.
65	Motor 1 Block functions	1 Bit	1.001	If a telegram with the value "1" is received on one of these communication objects, the functions parametered in the ETS for the corresponding blind is blocked. If a telegram with the value "0" is received on one of these communication objects, the functions parametered in the ETS for the corresponding blind is no longer blocked and freed again.
66	Motor 2 Block functions	1 Bit	1.001	
67	Motor 3 Block functions	1 Bit	1.001	
68	Motor 4 Block functions	1 Bit	1.001	
69	Motor 1-4 Block functions	1 Bit	1.001	If a telegram with the value "1" is received on this communication object, the functions parametered in the ETS for the blinds 1-4 are blocked. If a telegram with the value "0" is received on this communication object, the functions parametered in the ETS for the blinds 1-4 are no longer blocked and freed again.
70	Motor 1 Prio automatic/manual	1 Bit	1.001	Over these communication objects the priority automatic function and priority manual function can be switched. If a telegram with the value "1" is received on one of these communication objects, the automatic functions for the corresponding blind is priority activated. If a telegram with the value "0" is received on one of these communication objects, the manual functions for the corresponding blind is active.
71	Motor 2 Prio automatic/manual	1 Bit	1.001	
72	Motor 3 Prio automatic/manual	1 Bit	1.001	
73	Motor 4 Prio automatic/manual	1 Bit	1.001	
74	Motor 1 Reset priority	1 Bit	1.001	If a telegram with the value "1" or "0" is received on one of these communication objects the priority switching for the corresponding blind is reset. Automatic functions or manual functions are then switched to priority active again. Whichever priority is active depends on the status of the communication objects 70-73 or whichever priority has been parametered in the ETS.
75	Motor 2 Reset priority	1 Bit	1.001	
76	Motor 3 Reset priority	1 Bit	1.001	
77	Motor 4 Reset priority	1 Bit	1.001	
78	Input 1: UP/DOWN	1 Bit	1.001	A long pressing of the button on input A generates a telegram on this communication object with the value "0". The Venetian blind moves UP. A long pressing of the button on input B generates a telegram on this communication object with the value "1". The Venetian blind moves DOWN.
79	Input 1: Step/Stop	1 Bit	1.001	A short pressing of the button on input A generates a telegram on this communication object with the value "0". The slat turns UP. When the Venetian blinds are making a move then a short pressing of the button generates a stop command on input A. A short pressing of the switch on input B generates a telegram with the value "1". The slats turn CLOSE. When the Venetian blind is making a move then a short pressing of the button generates a stop command on input B.
80	Input 1: A, Switch	1 Bit	1.001	According to the parameter settings and the state at input 1 contact A a switching telegram is sent over this communication object with the value "1" or "0".
81	Input 1: B, Switch	1 Bit	1.001	According to the parameter settings and the state at input 1 contact B, a switching telegram is sent over this communication object with the value "1" or "0".
82	Input 1: A, 8-Bit value	1 Bit	5.004	According to the parameter settings, with a rising edge on input 1 contact A, the parametered value (0-255) is sent.
83	Input 1: B, 8-Bit value	1 Bit	5.004	According to the parameter settings, with a rising edge on input 1 contact B, the parametered value (0-255) is sent.

No.	Object name	Type	DPT_ID	Description
84	Input 1: A/B, Dimming	1 Bit	1.001	On/Off: According to the parameter settings, with a short pressing at the input 1 contact A/B, a telegram is generated with the value "1" or "0". Toggle/Toggle: According to the parameter settings, with a short pressing at the input 1 contact A/B, a telegram is generated with the value "1" or "0".
85	Input 1: A/B, Dimming, value	4 Bit	3.007	Brighter/darker dimming: According to the parameter settings, brighter dimming is done with a long pressing at the input 1 contact A. According to the parameter settings, darker dimming is done with a long pressing at the input 1 contact B. Brighter/Darker toggle: According to the parameter settings, over input 1 contact A, 100 % is dimmed with longer pressing of the switch. When releasing the corresponding switch at the input A, a stop command is generated. The last activated dimming step becomes inverted. According to the parameter settings, over input 1 contact A, 100 % is dimmed with longer pressing of the switch. When releasing the corresponding switch at the input B, a stop command is generated. The last activated dimming step becomes inverted.
86	Input 2: UP / DOWN	1 Bit	1.001	see object description 78, C/D instead of A/B
87	Input 2: Step/Stop	1 Bit	1.001	see object description 79, C/D instead of A/B
88	Input 2: C, Switch	1 Bit	1.001	see object description 80, C instead of A
89	Input 2: D, Switch	1 Bit	1.001	see object description 81, D instead of B
90	Input 2: C, 8-Bit-value	8-Bit	5.004	see object description 82, C instead of A
91	Input 2: D, 8-Bit-value	8-Bit	5.004	See object description 83, D instead B
92	Input 2: C/D, Dimming	1 Bit	1.001	See object description 84, C/D instead A/B
93	Input 2: C/D, Dimming, value	4 Bit	3.007	See object description 84, C/D instead A/B
94	Input 3: UP / DOWN	1 Bit	1.001	See object description 78, E/F instead A/B
95	Input 3: Step/Stop	1 Bit	1.001	See object description 79, E/F instead A/B
96	Input 3: E, Switch	1 Bit	1.001	See object description 80, E instead A
97	Input 3: F, Switch	1 Bit	1.001	See object description 81, F instead B
98	Input 3: E, 8-Bit value	8-Bit	5.004	See object description 82, E instead A
99	Input 3: F, 8-Bit value	8-Bit	5.004	See object description 83, F instead B
100	Input 3: E/F, Dimming	1 Bit	1.001	See object description 84, E/F instead A/B
101	Input 3: E/F, Dimming, value	4 Bit	3.007	See object description 84, E/F instead A/B
102	Input 4: UP / DOWN	1 Bit	1.001	See object description 78, G/H instead A/B
103	Input 4: Step/Stop	1 Bit	1.001	See object description 79, G/H instead A/B
104	Input 4: G, Switch	1 Bit	1.001	See object description 80, G instead A
105	Input 4: H, Switch	1 Bit	1.001	See object description 81, H instead B
106	Input 4: G, 8-Bit value	8-Bit	5.004	See object description 82, G instead A

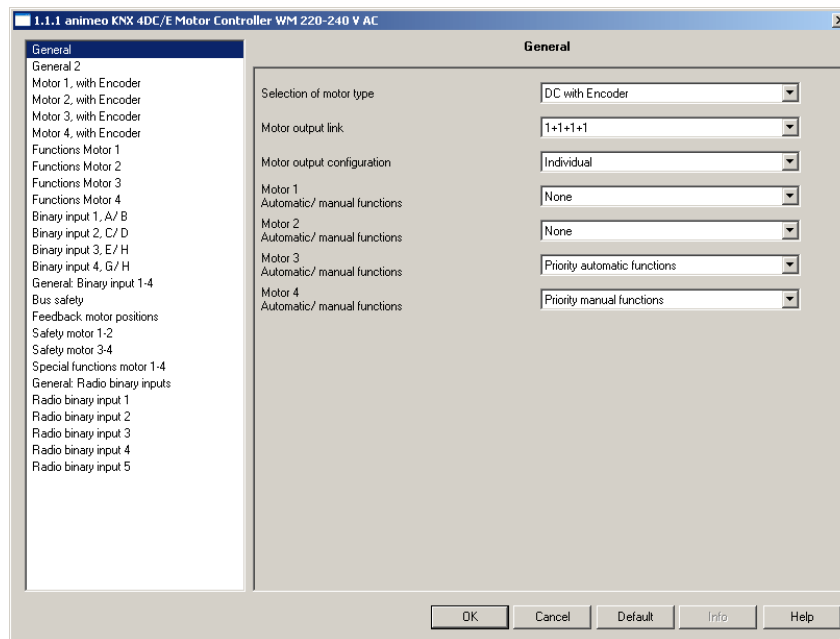
No.	Object name	Type	DPT_ID	Description
107	Input 4: H, 8-Bit value	8-Bit	5.004	See object description 83, H instead B
108	Input 4: G/H, Dimming	1 Bit	1.001	See object description 84, G/H instead A/B
109	Input 4: G/H, Dimming, value	4 Bit	3.007	See object description 85, G/H instead A/B
110	Radio input 1: UP/DOWN	1 Bit	1.001	A longer pressing of the "UP" switch on channel 1 of the learned-in handheld sender generates a telegram with the value "0". The Venetian blind moves UP. A longer pressing of the "DOWN" switch on channel 1 of the learned-in handheld sender generates a telegram with the value "1". The Venetian blind moves DOWN.
111	Radio input 1: Step/Stop	1 Bit	1.001	According to the parameter settings a short press on the "my" button on channel 1 of the learned-in handheld radio transmitter generates a telegram with the value "0" on this communication object. The slats turn OPEN. When the Venetian blind is moving then a short press of channel 1 on the learned-in handheld radio transmitter will generate a stop command. A short pressing of the "DOWN" button on channel 1 of the learned-in handheld radio transmitter generates a telegram with the value "1" on this communication object. The slats turn DOWN. When the Venetian blind is moving then a short press of channel 1 on the learned-in handheld radio transmitter will generate a stop command.
112	Radio input 1: Switch "my" button	1 Bit	1.001	According to the parameter settings a press on the "my" button on channel 1 of the learned-in handheld radio transmitter generates a switching telegram with the value "0" or "1" on this communication object.
113	Radio input 1: 8-Bit value "my" button	1 Byte	5.004	According to the parameter settings a press on the "my" button on channel 1 of the learned-in handheld radio transmitter sends a switching telegram with the value (0-255).
114	Radio input 1: Switch "Up" button	1 Bit	1.001	According to the parameter settings a press on the "UP" button on channel 1 of the learned-in handheld radio transmitter generates a switching telegram with the value "1" or "0" on this communication object.
115	Radio input 1: Switch "Down" button	1 Bit	1.001	According to the parameter settings a press on the "DOWN" button on channel 1 of the learned-in handheld radio transmitter generates a switching telegram with the value "1" or "0" on this communication object.
116	Radio input 1: 8-Bit value "Up" button	1 Byte	5.004	According to the parameter settings a press on the "UP" button on channel 1 of the learned-in handheld radio transmitter sends a switching telegram with the value (0-255).
117	Radio input 1: 8-Bit value "Down" button	1 Byte	5.004	According to the parameter settings a press on the "DOWN" button on channel 1 of the learned-in handheld radio transmitter sends a switching telegram with the value (0-255).

No.	Object name	Type	DPT_ID	Description
118	Radio input 1: Dimming ON/OFF or Slow tilting UP/DOWN	1 Bit	1.001	ON/UP: A short pressing of the "UP" button on channel 1 of the learned-in handheld radio transmitter generates a telegram with the value "0" on this communication object. The lights switch OFF or the Venetian blind moves UP. OFF/DOWN: A short pressing of the "DOWN" button on channel 1 of the learned-in handheld radio transmitter generates a telegram with the value "1" on this communication object. The lights switch ON or the Venetian blind moves DOWN. Toggle/Toggle: A short pressing of the "DOWN" or the "UP" button on channel 1 of the learned-in handheld radio transmitter generates a telegram with the value "1" or with the value "0" on this communication object. The lights switch ON or OFF or the Venetian blind moves DOWN or UP.
119	Radio input 1: Dimming Brighter/Darker or Slow tilting open/close	4 Bit	3.007	Brighter/Slow tilting open: A longer pressing of the "UP" button on channel 1 of the learned-in handheld radio transmitter generates a telegram with the value "0" on this communication object. The light dims darker or the Venetian blind moves UP. Darker/Slow tilting close: A short pressing of the "DOWN" button on channel 1 of the learned-in handheld radio transmitter generates a telegram with the adjusted value "1" on this communication object. The light dims brighter or the Venetian blind turns slowly closed.
120	Radio input 2: UP / DOWN	1 Bit	1.001	See object description 110, channel 2 instead channel 1
121	Radio input 2: Step/Stop	1 Bit	1.001	See object description 111, channel 2 instead channel 1
122	Radio input 2: Switch "my" button	1 Bit	1.001	See object description 112, channel 2 instead channel 1
123	Radio input 2: 8-Bit value "my" button	1 Byte	5.004	See object description 113, channel 2 instead channel 1
124	Radio input 2: Switch "Up" button	1 Bit	1.001	See object description 114, channel 2 instead channel 1
125	Radio input 2: Switch "Down" button	1 Bit	1.001	See object description 115, channel 2 instead channel 1
126	Radio input 2: 8-Bit value "UP" button	1 Byte	5.004	See object description 116, channel 2 instead channel 1
127	Radio input 2: 8-Bit value "DOWN" button	1 Byte	5.004	See object description 117, channel 2 instead channel 1
128	Radio input 2: Dimming On/Off or Slowly tilting Up/Down	1 Bit	1.001	See object description 118, channel 2 instead channel 1
129	Radio input 2: Dimming Brighter/Darker or Slowly tilting Up/Close	4 Bit	3.007	See object description 119, channel 2 instead channel 1
130	Radio input 3: UP / DOWN	1 Bit	1.001	See object description 110, channel 3 instead channel 1
131	Radio input 3: Step/Stop	1 Bit	1.001	See object description 111, channel 3 instead channel 1
132	Radio input 3: Switching "my" button	1 Bit	1.001	See object description 112, channel 3 instead channel 1
133	Radio input 3: 8-Bit value "my" button	1 Byte	5.004	See object description 113, channel 3 instead channel 1
134	Radio input 3: Switching "UP" button	1 Bit	1.001	See object description 114, channel 3 instead channel 1
135	Radio input 3: Switching "DOWN" button	1 Bit	1.001	See object description 115, channel 3 instead channel 1

No.	Object name	Type	DPT_ID	Description
136	Radio input 3: 8-Bit value "UP" button	1 Byte	5.004	See object description 116, channel 3 instead channel 1
137	Radio input 3: 8-Bit value "DOWN" button	1 Byte	5.004	See object description 117, channel 3 instead channel 1
138	Radio input 3: Dimming On/Off or Slowly tilting Up/Down	1 Bit	1.001	See object description 118, channel 3 instead channel 1
139	Radio input 3: Dimming Brighter/Darker or Slowly tilting Up/Close	4 Bit	3.007	See object description 119, channel 3 instead channel 1
140	Radio input 4: UP / DOWN	1 Bit	1.001	See object description 110, channel 4 instead channel 1
141	Radio input 4: Step/Stop	1 Bit	1.001	See object description 111, channel 4 instead channel 1
142	Radio input 4: Switching "my" button	1 Bit	1.001	See object description 112, channel 4 instead channel 1
143	Radio input 4: 8-Bit value "my" button	1 Byte	5.004	See object description 113, channel 4 instead channel 1
144	Radio input 4: Switching "UP" button	1 Bit	1.001	See object description 114, channel 4 instead channel 1
145	Radio input 4: Switching "DOWN" button	1 Bit	1.001	See object description 115, channel 4 instead channel 1
146	Radio input 4: 8-Bit value "UP" button	1 Byte	5.004	See object description 116, channel 4 instead channel 1
147	Radio input 4: 8-Bit value "DOWN" button	1 Byte	5.004	See object description 117, channel 4 instead channel 1
148	Radio input 4: Dimming On/Off or Slowly tilting Up/Down	1 Bit	1.001	See object description 118, channel 4 instead channel 1
149	Radio input 4: Dimming Brighter/Darker or Slowly tilting Up/Close	4 Bit	3.007	See object description 119, channel 4 instead channel 1
150	Radio input 5: UP / DOWN	1 Bit	1.001	See object description 110, channel 5 instead channel 1
151	Radio input 5: Step/Stop	1 Bit	1.001	See object description 111, channel 5 instead channel 1
152	Radio input 5: Switching "my" button	1 Bit	1.001	See object description 112, channel 5 instead channel 1
153	Radio input 5: 8-Bit value "my" button	1 Byte	5.004	See object description 113, channel 5 instead channel 1
154	Radio input 5: Switching "UP" button	1 Bit	1.001	See object description 114, channel 5 instead channel 1
155	Radio input 5: Switching "DOWN" button	1 Bit	1.001	See object description 115, channel 5 instead channel 1
156	Radio input 5: 8-Bit value "UP" button	1 Byte	5.004	See object description 116, channel 5 instead channel 1
157	Radio input 5: 8-Bit value "DOWN" button	1 Byte	5.004	See object description 117, channel 5 instead channel 1
158	Radio input 5: Dimming On/Off or Slowly tilting Up/Down	1 Bit	1.001	See object description 118, channel 5 instead channel 1
159	Radio input 5: Dimming Brighter/Darker or Slowly tilting Up/Close"	4 Bit	3.007	See object description 119, channel 5 instead channel 1
160	Main power failure (230 V)	1 Bit	1.002	A mains power failure is signaled with this communication object. 20 seconds after mains voltage cuts out, a telegram with the value "1" is sent to the bus. With return of mains voltage this communication object sends the telegram with the value "0".

The selection options of the single parameters are described in each case. The defaults are printed in *italics*. In the following illustrations of the different menu index cards the maximum number of parameters is shown. Besides this and depending on the parameter settings, objects which are not required are blended out.

6.1 Menu index card "General"



Selection of motor type

- Options:
- DC without Encoder
 - *DC with Encoder*

Over the parameters it is defined which motors are to be connected to the motor outputs. DC motors without encoder have a two-wire connecting cable (white, gray). DC motors with encoder have a three-wire connecting cable (white, grey, purple).

DC motors without encoder: Somfy LV 25-B44 and B64, Somfy LW 25-B44 and B83, Somfy LT 28-B73, J101

DC motors with encoder: Somfy LW 25-E83

The selection of the motor type applies to all four motor outputs.

Motor output link

- Options:
- *1+1+1+1*
 - 2+1+1
 - 2+2

Over this parameter, the motor outputs can be connected device-internally with each other. A connection is necessary when for example, two motors are used to control a screen. This means that two motors are integrated into one Din rail and move one motor.

Independent of the type of connection, 2+1+1 or 2+2, all motor cables must be connected to the motor outputs. To control the motor outputs, only the object and parameter of one motor must be parametered. For example when connecting 2+1+1 only the objects and parameters for motor 1.

Motor output configuration

- Options:
- *Combined*
 - Individual

With these parameters, the settings of the motor outputs are made as to whether "*Combined*" or "*Individual*". If the parameter "*Combined*" is selected, only one menu index card becomes visible for the basic settings of all four motor outputs (motor 1–4).

△ The selection "Combined" is recommended for projects for which the settings of the motor outputs are the same.

If the parameter "Individual" is selected, four single cards become visible for the standard settings of the motor outputs (motor 1, motor 2, ...).

Motor 1...4

Automatic/manual functions

- Options:
- *None*
 - Priority automatic functions
 - Priority manual functions

- **None:**

The move commands are carried out in the incoming order sequence.

- **Priority automatic functions:**

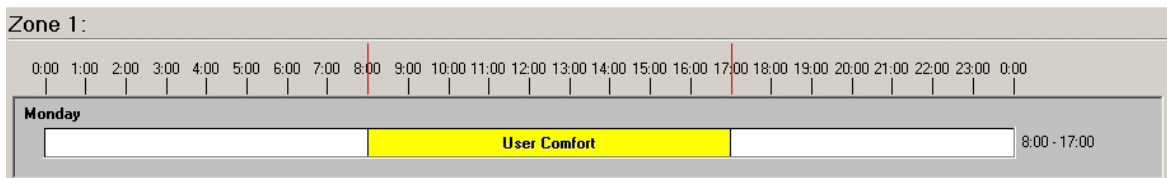
If an automatic command (1 Byte move command) occurs before a manual command (1 Bit move command), all manual commands are closed. The objects at the start-up of the intermediate positions 1 and 2 (objects 21–30) are also closed. A manual command is also generated over the local push button inputs or via the radio hand transmitter. However, a tilting command (1 bit) can always be made within the parametered tilting time. A reset of the priority automatic function occurs when "Priority reset" (74–77) receives "1" or "0" on the corresponding object. Shifting between priority manual functions (value "0") and priority automatic functions (value "1") is done over the corresponding objects (70–73). After changing over to the corresponding priority the function is again in the reset state. This means that for priority automatic functions the manual commands are blocked only with the next automatic command.

- **Priority manual functions:**

When a manual command (1 Bit) occurs before an automatic command (1 Byte), all automatic commands are blocked. A manual command is also generated over the local push button inputs or the radio hand transmitter. A reset of the priority manual function occurs when "Priority reset" (74–77) receives "1" or "0" on the corresponding object. Shifting between priority manual functions (value "0") and priority automatic functions (value "1") is done over the corresponding objects (70–73). After changing over to the corresponding priority the function is again in the reset state. This means that for priority automatic functions the manual commands are blocked only with the next automatic command.

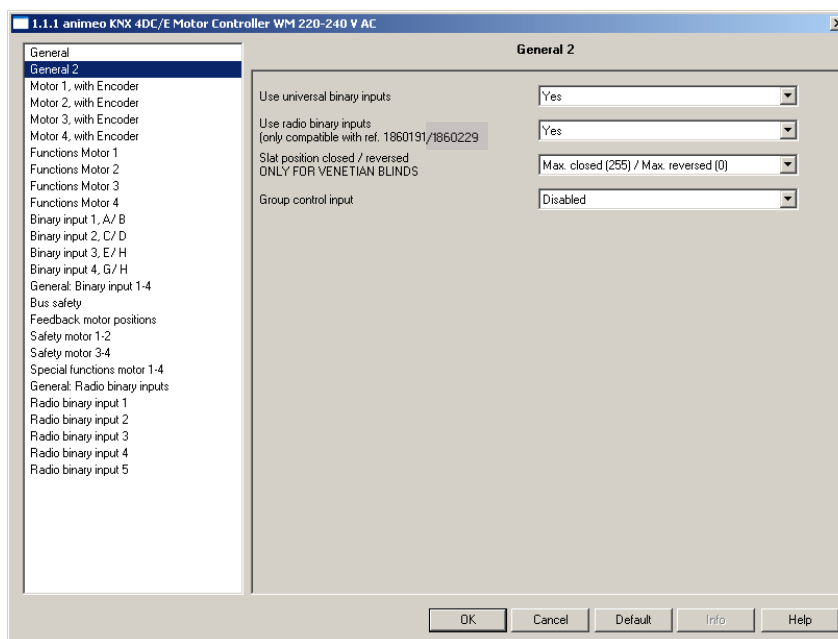
△ See chapter 1 Definitions.

- △ Over the priority manual function the user has the option of switching off the automatic functions. User comfort can be defined, for example, with a timer. At 8:00 o'clock the priority manual function is activated over the corresponding object (70–73) and the user can move to the desired position using the manual functions until priority automatic functions are switched over at around 17:00 on priority automatic functions toggles. Over the corresponding object (70–73), switching to and from priority manual function and priority automatic function can be done at any time.



To set the timer, ideally the façade controller animeo KNX Master Control W2 (Ref. 1860187) or animeo KNX Master Control W8 (Ref. 1860193) can be used.

6.2 Menu index card "General 2"



Use universal binary inputs

- Options:
- No
 - Yes

With the parameter "Yes", four further menu index cards open (push button binary input 1...4). Now the local push button inputs can be connected over the corresponding objects (78–109). A conventional push button can thus be used for the most different of functions. For example, Switching, Venetian blind function, Dimming or Sending a value.

Use radio binary inputs

- Options:
- No
 - Yes

With the parameter "Yes" a menu index card opens (General: Radio binary input), over which five further menu index cards can be activated (Radio binary input 1...5). Now the radio channels can be connected over the corresponding objects (110–159). A radio transmitter can be used thus for the most different of functions.

Slat position closed/reversed ONLY FOR VENETIAN BLINDS

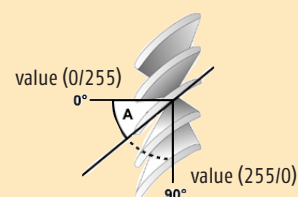
- Options:
- Max. closed (255) / Max. reversed (0)
 - Max. closed (0) / Max. reversed (255)

• Max. closed (0) / Max. reversed (255)

If a value of "255" to the corresponding object is transmitted (13–16), the slats are closed at maximum.
If a value of "0" to the corresponding object is transmitted (13–16), the slats are turned or opened at maximum.

• Max. closed (0) / Max. reversed (255)

If a value of "0" to the corresponding object is transmitted (13–16), the slats are closed at maximum.
If a value of "255" to the corresponding object is transmitted (13–16), the slats are turned or opened at maximum.



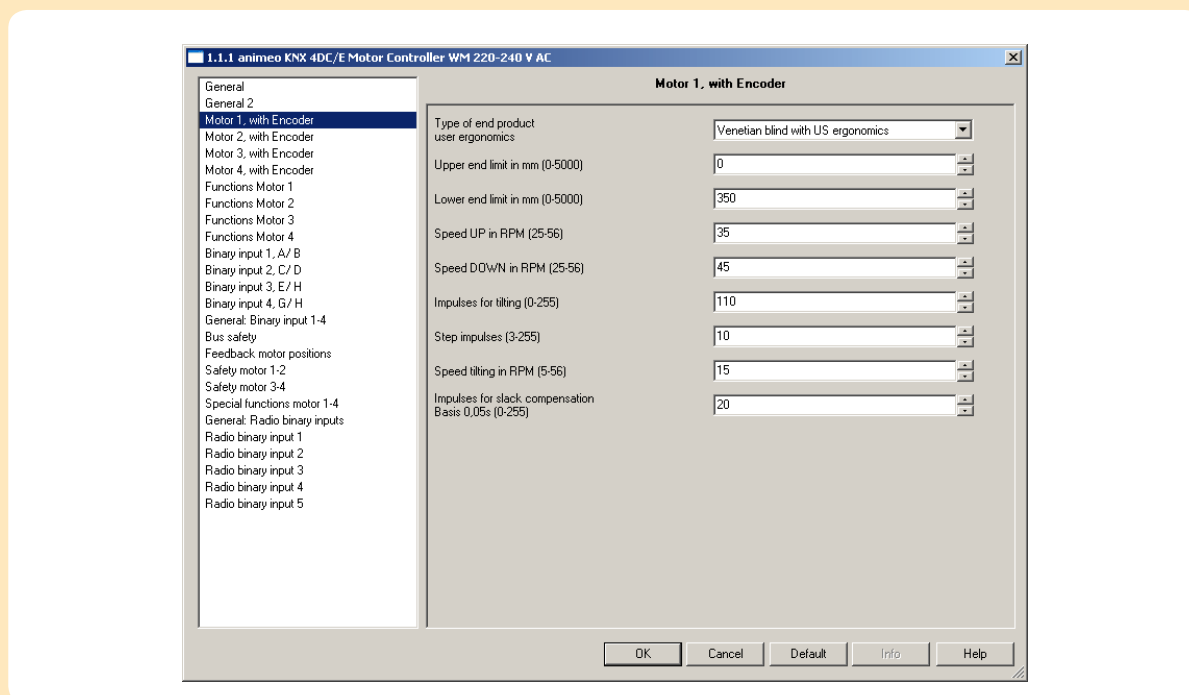
Group control input

- Options:
- Disabled
 - Enabled

Over this parameter it is determined whether the input is blocked to the group control or is freed. Over this input all four motors are selected at the same time. Regardless of the parameter settings, the security settings (objects 32–41) have higher priority. If one of the security objects is active, the input to the group control is blocked.

⚠ With a bus power failure this input is freed. Even if it is blocked over the parameter settings it can be used as an emergency service. With bus voltage return this input is blocked according to parameter settings or is freed.

6.3 Menu index card "Motor 1...4, with Encoder"



Four single menu index cards (motor 1 ... 4) become visible if in the menu of the basic setting "General" the parameter setting "Individual" is selected. One menu index card (motor 1 – 4) becomes visible if in the menu of the basic setting "General" the parameter setting "Combined" is selected.

⚠ The basic setting of the motors are different, depending on the selection of the motor type on the card "General" (DC without encoder or DC with encoder).

The following parameter descriptions are related to the selection of the motor type "DC with encoder":

Type of end product user ergonomics

- Options:
- Venetian blind with EU ergonomics
 - Venetian blind with US ergonomics
 - Roller blind

• Venetian blind with EU ergonomics

With this parameter it is determined that the Venetian blind in EU ergonomics is selected over the local push button inputs or via the Somfy RTS radio transmitter.

When the local push button inputs are used as universal push button inputs, the operating ergonomics are defined over the corresponding parameters (short/long pressing of the push button). The operating ergonomics using a Somfy RTS radio transmitter remains unchanged.

⚠ For an explanation of EU/US and screen ergonomics see chapter 1 Definitions.

- **Venetian blind with US ergonomics**

With this parameter it is determined that the Venetian blind in US ergonomics is selected over the local push button inputs or via the Somfy RTS radio transmitter.

When the local push button inputs are used as universal push button inputs, the operating ergonomics are defined over the corresponding parameters (short/long pressing of the push button). The operating ergonomics using a Somfy RTS radio transmitter remains unchanged.

△ For an explanation of EU/US ergonomics and screen ergonomics see chapter 1 Definitions.

- **Roller blind**

With this parameter it is determined that the corresponding blind is selected over move/stop commands when the controlling is done over the local push button inputs or via the Somfy RTS radio hand transmitter.

When the local push button inputs are used as universal push button inputs, the operating ergonomics are defined over the corresponding parameters (short/long pressing of the push button). The operating ergonomics using a Somfy RTS radio transmitter remains unchanged.

△ For an explanation of EU/US and screen ergonomics see chapter 1 Definitions.

Upper end limit in mm (0-5000)

Options:

- 0
- 0-5000 millimetres

The parametered lengths in millimetres defines the upper end position of the blinds.

△ Explanation; see chapter 2, blinds position for DC motors with encoder (LW 25 E83)

Lower end limit in mm (0-5000)

Options:

- 350
- 0-5000 millimetres

The parametered lengths in millimetres defines the lower end position of the blinds.

△ Explanation; see chapter 2, blinds position for DC motors with encoder (LW 25 E83)

Speed UP in RPM (25-56)

Options:

- 35
- 25-56

The parametered speed defines the speed for the move in the upper end position.

Speed DOWN in RPM (25-56)

Options:

- 45
- 25-56

The parametered speed defines the speed for the move in the lower end position.

Impulses for tilting (0-255)

Options:

- 110
- 0-255

The parametered impulses here define the maximum slat tilting. This parameter is only visible when the type of product/user ergonomics, either Venetian blinds with EU ergonomics or Venetian blinds with US ergonomics, is selected.

△ Setting recommendation: With a slat width of 25 mm = approx. 110 impulses for the tilting.
With a slat width of 16 mm = approx. 90 impulses for the tilting.

Step impulses (3-255)

- Options:
- 10
 - 3-255

The impulses parametered here define the impulses for a tilting step. This parameter is only visible when the type of product/user ergonomics, either Venetian blind with EU ergonomics or Venetian blind with US ergonomics, is selected.

Speed tilting in RPM (5-56)

- Options:
- 15
 - 5-56

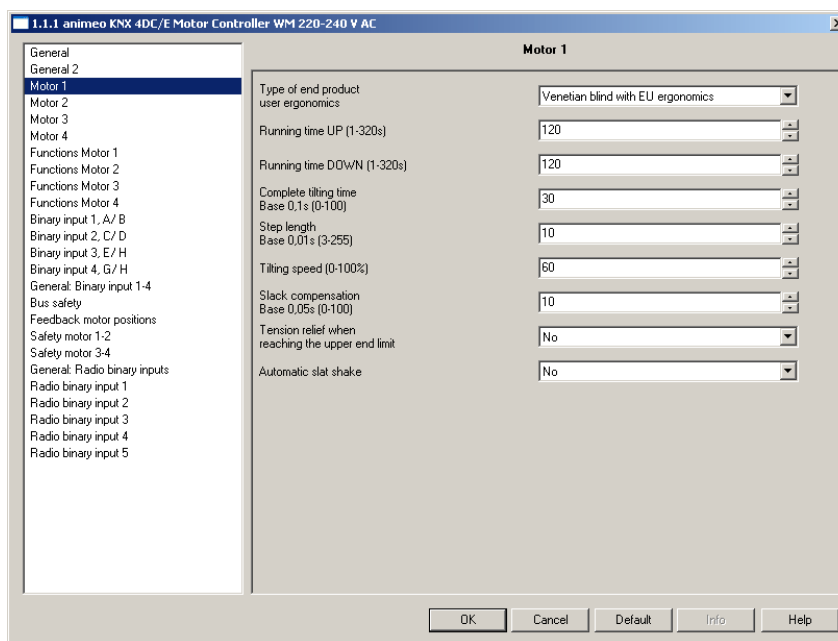
The speed parametered here defines the slats tilting speed. This parameter is only visible when the type of product/user ergonomics, either Venetian blinds with EU ergonomics or Venetian blinds with US ergonomics, is selected.

Impulses for slack compensation Basis 0,05s (0-255)

- Options:
- 20
 - 0-255

The parametered impulses here define the impulses which are added to the impulses for tilting to balance out mechanical tolerances. This parameter is only visible when the type of end product/user ergonomics, either Venetian blind with EU ergonomics or Venetian blind with US ergonomics, is selected.

6.4 Menu index card "Motor 1...4"



Four single menu index cards (motor 1 ... 4) become visible if in the menu of the basic setting "General" the parameter setting "Individual" is selected. One menu index card (motor 1 - 4) becomes visible if in the menu of the basic setting "General" the parameter setting "Combined" is selected.

⚠ The basic setting of the motors are different, depending on the selection of the motor type on the card "General" (DC without encoder or DC with encoder).

The following parameter descriptions are related to the selection of the motor type "DC without encoder":

Type of end product user ergonomics

- Options:
- Venetian blind with EU ergonomics
 - *Venetian blind with US ergonomics*
 - Roller blind

• Venetian blind with EU ergonomics

With this parameter it is determined that the Venetian blind in EU ergonomics is selected over the local push button inputs or via the Somfy RTS radio transmitter.

When the local push button inputs are used as universal push button inputs, the operating ergonomics are defined over the corresponding parameters (short/long pressing of the push button). The operating ergonomics using a Somfy RTS radio transmitter remains unchanged.

△ For an explanation of EU/US and screen ergonomics see chapter 1 Definitions.

• *Venetian blind with US ergonomics*

With this parameter it is determined that the Venetian blind in US ergonomics is selected over the local push button inputs or via the Somfy RTS radio transmitter.

When the local push button inputs are used as universal push button inputs, the operating ergonomics are defined over the corresponding parameters (short/long pressing of the push button). The operating ergonomics using a Somfy RTS radio transmitter remains unchanged.

△ For an explanation of EU/US and screen ergonomics see chapter 1 Definitions.

• Roller blind

With this parameter it is determined that the corresponding blind is selected over move/stop commands when the controlling is done over the local push button inputs or via the Somfy RTS radio hand transmitter.

When the local push button inputs are used as universal push button inputs, the operating ergonomics are defined over the corresponding parameters (short/long pressing of the push button). The operating ergonomics using a Somfy RTS radio transmitter remains unchanged.

△ For an explanation of EU/US and screen ergonomics see chapter 1 Definitions.

Running time UP (1-320s)

- Options:
- 120
 - 1 - 320 seconds

The time parametered here is the maximum running time from the lower end position to the upper end position. An excess time of 5 seconds is always added, except with position telegrams (objects 9-12). If a position telegram with the value "0" is sent to the corresponding object, an excess time of 5 seconds is still added to it.

Running time DOWN (1-320s)

- Options:
- 120
 - 1 - 320 seconds

The time parametered here is the maximum running time from the upper end position to the lower end position. An excess time of 5 seconds is always added, except with position telegrams (objects 9-12). If a position telegram with the value "255" is received on the corresponding object, an excess time of 5 seconds is still added to it.

Complete tilting time

Base 0.1s (0-100)

- Options:
- 30
 - 0 - 100

The time parametered here is the maximum tilting time of the slat. This parameter is only visible when the type of end product, Venetian blind with EU ergonomics or Venetian blind with US ergonomics, have been selected.

Step length Base 0.01s (3-255)

- Options:
- 10
 - 3 - 255

The time parametered here is the running time for a tilting step. This parameter is only visible when the type of product/user ergonomics, either Venetian blind with EU ergonomics or Venetian blind with US ergonomics, is selected.

Tilting speed (0-100%)

- Options:
- 60
 - 0 - 100

This parameter defines the speed in which the slats are tilting. Value "0" defines the slowest tilting speed, value "100" defines the fastest tilting time.

Slack compensation Base 0.05s (0-100)

- Options:
- 10
 - 0 - 100

The time for slack compensation is active as soon as a higher value than "0" is entered. The time parametered here defines the time which is added to the parametered complete slat tilting to balance out mechanical tolerances. This time is always added with the first UP turn of the slats when the type of end product, Venetian blinds with EU ergonomics or Venetian blind with US ergonomics, have been selected.

Tension relief when reaching the upper end limit

- Options:
- No
 - Yes

⚠ With this parameter it is possible to extend the life of the end product (Venetian blinds).

By selecting "Yes" the Venetian blinds are relieved when reaching the upper end position. This means, shortly after reaching a minimal DOWN command is generated. As a result the Venetian blind is relieved of the strain whilst standing in the upper end position. By relieving the pull cords they are not unnecessarily strained. Thus life span is extended.

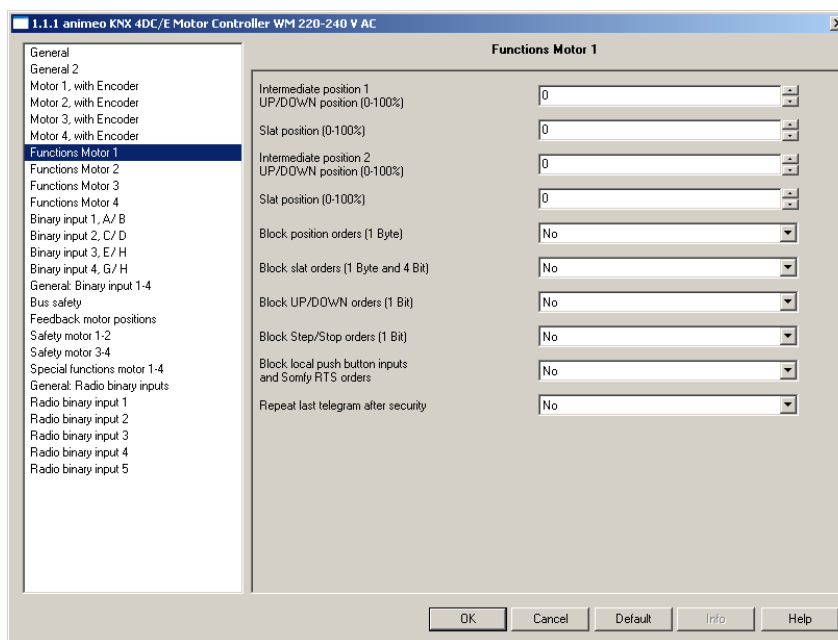
Automatic slat shake

- Options:
- No
 - Yes

With selection of "Yes" the slats tilt automatically when reaching the lower end limit. Here, the slats are once completely opened and closed.

⚠ This function allows to possibly set up the slats automatically. It may happen that during a DOWN order some slats get entangled in the tilting cords and therefore do not stop in the mechanical default position. With a complete opening and closing of the slats the entangled ones go back into the mechanical default position.

6.5 Menue index card "Functions Motor 1...4"



Four single menu index cards (Functions motor 1 ... 4) become visible if in the menu of the basic setting "General" the parameter setting "Individual" is selected. One menu index card (motor 1 – 4) becomes visible if in the menu of the basic setting "General" the parameter setting "Combined" is selected.

⚠ The parameters which become visible on this parameter card are independent of the selection of the motor type (DC without Encoder or DC with Encoder) on the parameter card "General". The parameters for the setting of functions are identical for both motor types.

Intermediate position 1 UP / DOWN Position (0-100%)

Options:

- 0
- 0 - 100

With this parameter the intermediate position 1 "UP / DOWN" is defined. The set value in % refers to the parametered running times and lengths of the corresponding blind of the menue index card Motor 1...4.

If the IP Up/Down position parameter is set to 0 %, the IP position is disabled. This function avoids any movement of the blinds by using the "my" or IP push button.

Slat position (0-100%)

Options:

- 0
- 0 - 100

With this parameter the intermediate position 1 "Slat" is defined. The set value in % refers to the parametered complete tilting time of the corresponding blind of the menue index card Motor 1...4.

⚠ Intermediate position 1 can be learned-in individually via conventional local push buttons, or by a radio handheld transmitter per motor output. In addition, the last learned-in position applies.

Intermediate position 2 UP / DOWN position (0-100%)

Options:

- 0
- 0 - 100

With this parameter the intermediate position 2 "UP / DOWN" is defined. The set value in % refers to the parametered running times and lengths of the corresponding blind of the menue index card Motor 1...4.

If the IP Up/Down position parameter is set to 0 %, the IP position is disabled. This function avoids any movement of the blinds by using the "my" or IP push button.

Slat position (0-100%)

- Options:
- 0
 - 0 - 100

With this parameter the intermediate position 2 "slat" is defined. The set value in % refers to the parametered complete tilting time of the corresponding blind of the menu index card Motor 1...4.

Block position orders (1 Byte)

- Options:
- No
 - Yes

UP/DOWN orders (Byte) can be blocked per object (65-69) using this parameter. If a telegram with the value "1" is received on the corresponding object during a blinds move, this move is carried out up to the end. Only then are further UP/DOWN orders (Byte) blocked. If a telegram with the value "0" is received on the corresponding object, the UP/DOWN orders (Byte) are released again.

Block slat orders (1 Byte and 4 Bit)

- Options:
- No
 - Yes

Step/stop and turn commands (1 Byte and 4 Bit) can be blocked per object (65-69) using this parameter. If a telegram with the value "1" is received on the corresponding object during a blinds turn, this turn is carried out up to the end. Only then are further turn commands (1 Byte and 4 Bit) blocked. If a telegram with the value "0" is received on the corresponding object, the step/stop or turn commands (1 Byte and 4 Bit) are released again.

Block UP / DOWN orders (1 Bit and 4 Bit)

- Options:
- No
 - Yes

UP/DOWN orders (Bit) can be blocked per object (65-69) using this parameter. If a telegram with the value "1" is received on the corresponding object during a blinds move, this move is carried out up to the end. Only then are further UP/DOWN orders (Bit) blocked. If a telegram with the value "0" is received on the corresponding object, the UP/DOWN orders (bit) are released again.

Block Step/Stop orders (1 Bit)

- Options:
- No
 - Yes

Step/stop and turn commands (Bit) can be blocked per object (65-69) using this parameter. If a telegram with the value "1" is received on the corresponding object during a blinds turn, this turn is carried out up to the end. Only then are further turn commands (Bit) blocked. If a telegram with the value "0" is received on the corresponding object, the step/stop or turn commands (Bit) are released again.

Block local push button inputs and Somfy RTS orders

- Options:
- No
 - Yes

Local push button inputs and the Somfy RTS radio signal can be blocked per object (65-69) using this parameter. If a telegram with the value "1" is received on the corresponding object during a motor movement, this turn is carried out up to the end. Only after completion are any further commands blocked which are generated via local push button inputs or Somfy RTS radio signals. If a telegram with the value "0" is received on the corresponding object, the local push button inputs and Somfy RTS radio signals are freed again.

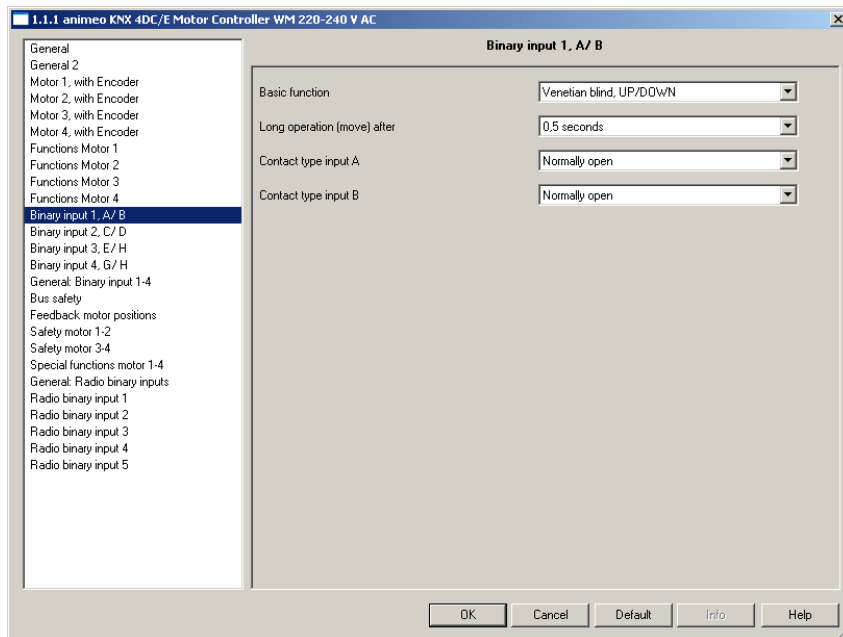
⚠ This function is deactivated for local push-button inputs if "Yes" has been selected in the "Use universal binary inputs menu index card (see section 6.2 on page 22).

Repeat last telegram after security

- Options:
- No
 - Yes

If this parameter is set to "Yes", the last move command is repeated after security. This means that it will move to the position which was active before a telegram with the value "1" was input to one of the corresponding security objects, low or high.

6.6 Menu index card "Binary input 1 ... 4, A/B"



General information for push button binary input

Four different basis functions can be selected for each push button input:

- *Venetian blind, UP/DOWN*
- Switch/Dry contact
- 8-Bit value (rising edge)
- Dimming

The single functions and parameters will be explained which arise depending on the selection of the basis functions. For this another basis function has been selected for each push button. The functions are described with the help of the input 1 contact A/B and are identical for the inputs 2-4, contacts C/D, E/F and G/H.

⚠ For the basis function "Venetian blind UP/DOWN" attention must be paid to which contact "UP" or "DOWN" is switched. The same applies with selection of the basis function "Dimming", for "Brighter" or "Darker" dimming. The pre-setting of the basis function for the menu index card push button 1 ... 4 is Venetian blind UP/DOWN.

Basic function

- Options:
- *Venetian blind, UP/DOWN*
 - Switch/Dry contact
 - 8-Bit value (rising edge)
 - Dimming

Long operation (move) after

- Options:
- 0.5 seconds
 - 0.3 – 5.0 seconds

This parameter defines the activity time of the corresponding push button which distinguishes between the sending of a short-term telegram (Step/Stop) and a long-term telegram (UP/DOWN). If the time, for example, is set on 0.5 seconds, a long-term telegram is generated only with a longer pressing of the push button which is longer than 0.5 seconds. With a shorter activation which is smaller than 0.5 seconds, a short-term telegram is generated.

Contact type input A

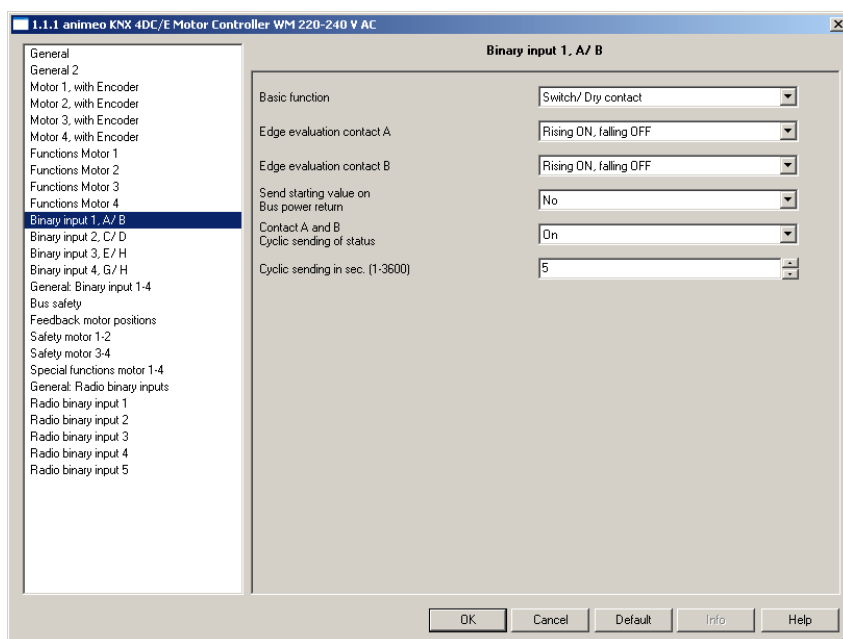
- Options:
- *Normally closed*
 - Normally open

Over this parameter it is defined which type of contact is at the local input A. Normally closed: The contact at the local input is activated closed and not activated opened. Normally opened: The contact at the local input is activated opened and not activated closed.

Contact type input B

- Options:
- *Normally closed*
 - Normally open

Over this parameter it is defined which type of contact is at the local input B. Normally closed: The contact at the local input is activated closed and not activated opened. Normally opened: The contact at the local input is activated opened and not activated closed.



Basic function

- Options:
- *Venetian blind UP/DOWN*
 - Switch/Dry contact
 - 8-Bit value (rising edge)
 - Dimming

Edge evaluation contact A

Options:

- *Rising ON, falling OFF*
- Rising OFF, falling ON
- Rising ON
- Falling ON
- Rising OFF
- Falling OFF
- Rising toggle
- Falling toggle
- Rising toggle, falling toggle
- No evaluation

On ("1")

Off ("0")

Toggle ("1/0")

The corresponding object value "0" or "1" is generated depending on which edge evaluation is parametered.

• ***Rising ON, falling OFF***

If a rising edge at the local input appears, the object value "On" is generated. If a falling edge at the local input appears, the object value "Off" is generated. The duration of the activation is not evaluated.

• **Rising OFF, falling ON**

If a rising edge at the local input appears, the object value "Off" is generated. If a falling edge at the local input appears, the object value "On" is generated. The duration of the activation is not evaluated.

• **Rising ON**

If a rising edge at the local input appears, the object value "On" is generated. If a falling edge at the local input appears, it is not evaluated. The duration of the activation is not evaluated.

• **Falling ON**

If a rising edge at the local input appears, the object value "On" is generated. If a rising edge at the local input appears, it is not evaluated. The duration of the activation is not evaluated.

• **Rising OFF**

If a rising edge at the local input appears, the object value "Off" is generated. If a falling edge at the local input appears, this is not evaluated. The duration of the activity is not evaluated.

• **Falling OFF**

If a falling edge at the local input appears, the object value "Off" is generated. If a rising edge at the local input appears, this is not evaluated. The duration of the activity is not evaluated.

• **Rising toggle**

If a rising edge at the local input appears, the object value is inverted. If a falling edge at the local input appears, this is not evaluated. The duration of the activity is not evaluated.

• **Falling toggle**

If a falling edge at the local input appears, the object value is inverted. If a rising edge at the local input appears, this is not evaluated. The duration of the activity is not evaluated.

• **Rising toggle, falling toggle**

If a rising or falling edge at the local input appears, the object value is inverted. The duration of the activity is not evaluated.

• **No evaluation**

If a rising or falling edge at the local input appears, this is not evaluated.

Edge evaluation contact B

Options:

- *Rising ON, falling OFF*
- Rising OFF, falling ON
- Rising ON
- Falling ON
- Rising OFF
- Falling OFF
- Rising toggle
- Falling toggle
- Rising toggle, falling toggle
- No evaluation

On ("1")

Off ("0")

Toggle ("1/0")

Send starting value on Bus power return

- Options:
- Yes
 - No

If this parameter is set, the current state of the input is transmitted with the bus voltage return. If this parameter is set to *"No"*, the current state of the input is not transmitted.

Ist dieser Parameter eingestellt, wird bei Busspannungswiederkehr der aktuelle Status des Eingangs gesendet. Ist dieser Parameter auf *"Nein"* gestellt, wird der aktuelle Status des Eingangs nicht gesendet.

Contact A and B Cyclic sending of status

- Options:
- No cyclic sending
 - On
 - Off
 - On and Off

With this parameter it is defined whether the corresponding switch value of the communication object should be transmitted cyclically.

- **No cyclic sending**

The switching value of the communication object is not transmitted cyclically.

- **On**

If the object value is "1", this is transmitted cyclically. If the object value changes by edge change at the local input or reception of a telegram on "0", the cyclic sending stops.

- **Off**

If the object value is "0", this is transmitted cyclically. If the object value changes by edge change at the local input or reception of a telegram on "0", the cyclic sending stops after "1".

- **On and Off**

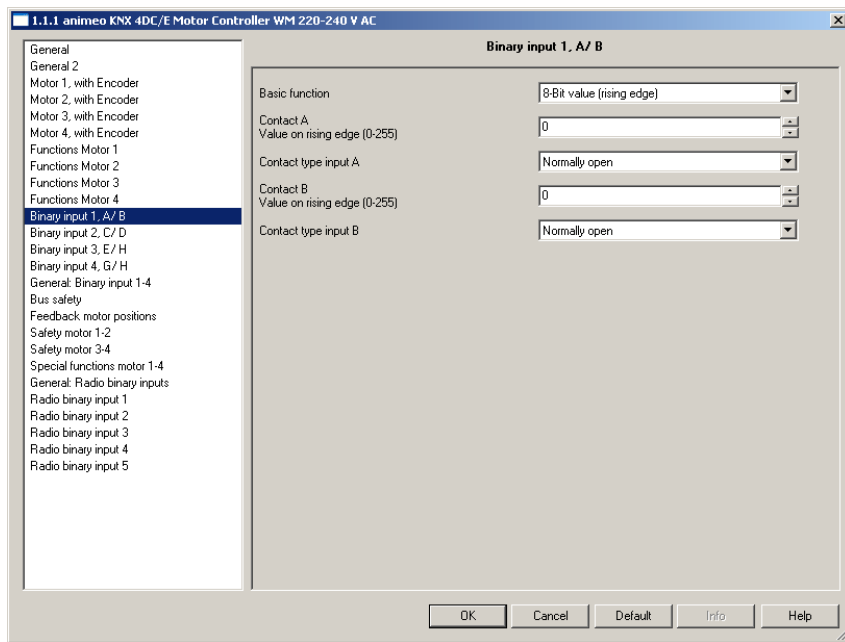
If the object value is "1" or "0", this is transmitted cyclically. If the object value changes by edge change at the local input or with reception of a telegram, the current object value is transmitted cyclically.

Cyclic sending in sec. (1-3600)

- Options:
- 5
 - 1 - 3600

With this parameter the time intervals are defined in which the corresponding object value should be transmitted cyclically.

⚠ Please note that cyclical supervision time of the receiver is approx. 1/4 higher than that of the transmitter.



Basic function

- Options:
- Venetian blind UP/DOWN
 - Switch/Dry contact
 - 8-Bit value (rising edge)
 - Dimming

Contact A Value on rising edge (0-255)

- Options:
- 0
 - 0 - 255

With this parameter the value is set which is transmitted with a rising edge to the local input A.

Contact type input A

- Options:
- Normally open
 - Normally closed

With this parameter it is defined which contact type is at the local input A. Normally open: The contact at the local input is activated closed and not activated opened. Normally closed: The contact at the local input is activated opened and not activated closed.

Contact B Value on rising edge (0-255)

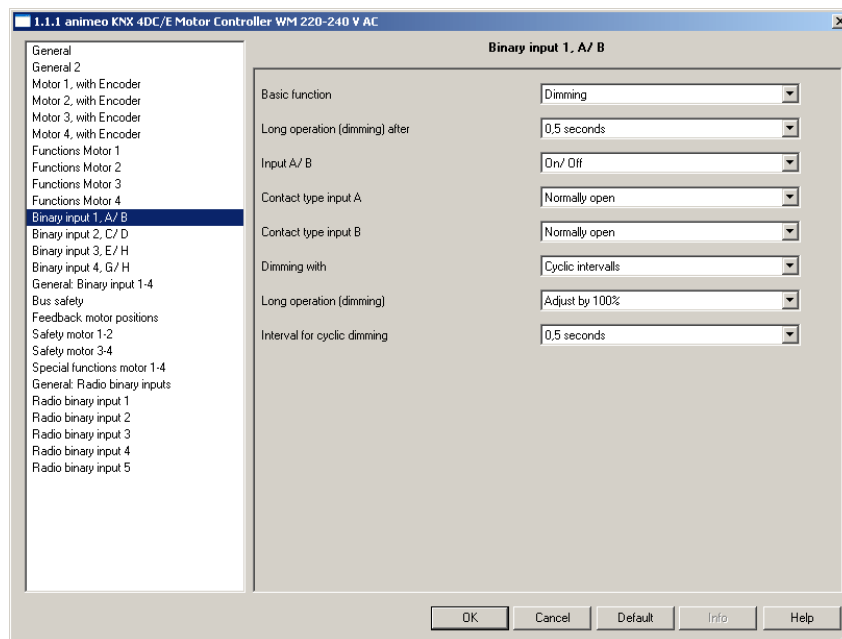
- Options:
- 0
 - 0 - 255

With this parameter the value is set which is transmitted with a rising edge at the local input B.

Contact type input B

- Options:
- Normally opened
 - Normally closed

With this parameter it is defined which contact type is at the local input B. Normally open: The contact at the local input is activated closed and not activated opened. Normally closed: The contact at the local input is activated opened and not activated closed.



Basic function

- Options:
- Venetian blind UP/DOWN
 - Switch/Dry contact
 - 8-Bit value (rising edge)
 - Dimming

Long operation (dimming) after

- Options:
- 0.5 seconds
 - 0.3 – 0.5 seconds

This parameter defines the activity time of the corresponding push button which makes a distinction between the sending of a switching telegram and a dimming telegram. If the time, for example, is parametered on *0.5 seconds*, a dimming telegram is generated only after a press activation longer than *0.5 seconds* is made. With a pressing shorter than *0.5 seconds* a switch telegram is generated.

Input A/B

- Options:
- On/Off
 - Toggle/Toggle

On ("1") Off ("0") Toggle ("1/0")

This parameter defines the value which is transmitted with a short pressing of the corresponding input.

• On/Off

With a short pressing of the push button at the input A, an "Off" telegram is generated. With a short activity of the corresponding push button at the input B, an "On" telegram is generated. This function can be inverted by changing over the clamps at the inputs.

• Toggle/Toggle

Switching over can be done with a short pressing of the push button at the input A or B. This means that the value which is in the corresponding switching object is firstly inverted and is then transmitted.

Contact type input A

- Options:
- *Normally closed*
 - Normally open

With this parameter it is defined which contact type is at the corresponding local input.
Normally open: The contact at the local input is activated closed and not activated open.
Normally closed: The contact at the local input is activated open and not activated closed.

Contact type input B

- Options:
- *Normally closed*
 - Normally open

With this parameter it is defined which contact type is at the corresponding local input.
Normally open: The contact at the local input is activated closed and not activated open.
Normally closed: The contact at the local input is activated open and not activated closed.

Dimming with

- Options:
- *Cyclic intervals*
 - Stop telegram

• *Cyclic intervals*

With a short pressing of the push button at the local input A or B, an "On" or an "Off" telegram is generated over the corresponding object (1 bit). With a long pressing of the push button at the local input A brighter dimming is done over the corresponding object (4 bit) as long as the push button is pressed. When the push button is released on the local input A cyclical sending is stopped. The length of steps and the time duration for brighter dimming is made from the parameters "longer push button pressing (dimming)" and "interval for cyclical dimming".

With a long pressing of the push button at the local input B, darker dimming is done over the corresponding object (4 bit) as long as the push button is pressed. When the push button is released on the local input B, cyclical sending is stopped. The length of steps and the time duration for darker dimming is made from the parameters "longer push button pressing (dimming)" and "interval for cyclical dimming".

• Stop telegram

With a short pressing of the push button at the local input A or B, a telegram is generated over the corresponding object (1 bit).

With a long pressing of the push button at the local input A brighter dimming is done over the corresponding object (4 bit). With a long pressing of the push button at the local input B, darker dimming is done over the corresponding object (4 bit). When the corresponding push button at the local input A or B is released, a stop command is generated.

Long operation (dimming)

- Options:
- *Adjust by 100%*
 - Adjust by 1/2
 - Adjust by 1/4
 - Adjust by 1/8
 - Adjust by 1/16
 - Adjust by 1/32
 - Adjust by 1/64

This parameter defines the dimming length of steps of the telegrams which are transmitted with a longer pressing.

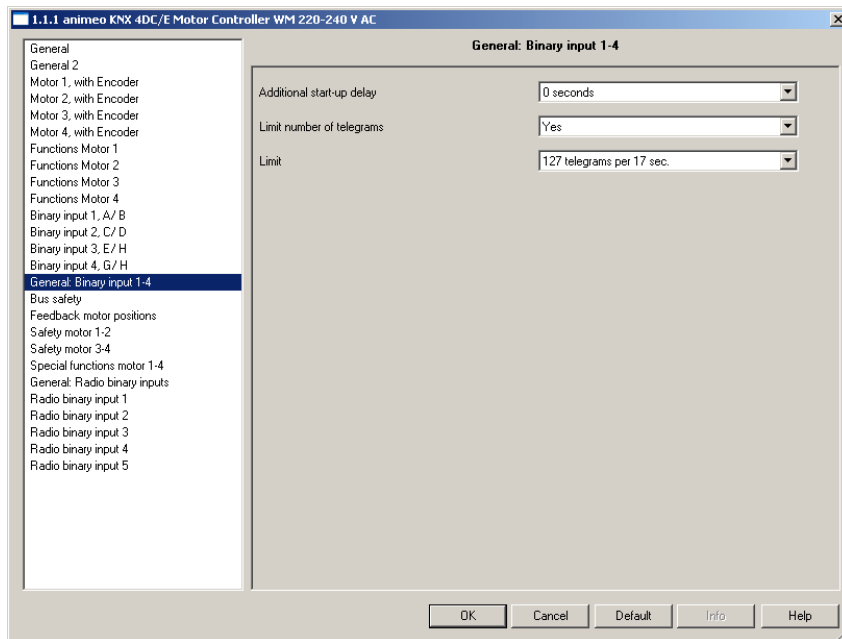
⚠ When "Dimming with cyclic intervals" is parametered, attention must be paid to the fact that the dimming length of steps and the interval for the cyclical dimming are matched to the dimming time of the actuator.

Interval for cyclic dimming

- Options:
- *0.5 seconds*
 - 0.5 – 7.0 seconds

This parameter defines the duration of an interval for cyclical sending. If, for example, a "change 1/4" and an "interval of 0.5 seconds" is set, then with a longer pressing of the push button on the corresponding local input, every 0.5 seconds 1/4 brighter or darker will be dimmed.

6.7 Menu index card "General: Binary input 1-4"



The parameters set here refer to the push button inputs 1 – 4.

Additional start-up delay

- Options:
- 0 seconds
 - 0 – 21 seconds

This parameter defines the time which is needed after bus voltage return, until the first telegram can be transmitted.

Limit number of telegrams

- Options:
- Yes
 - No

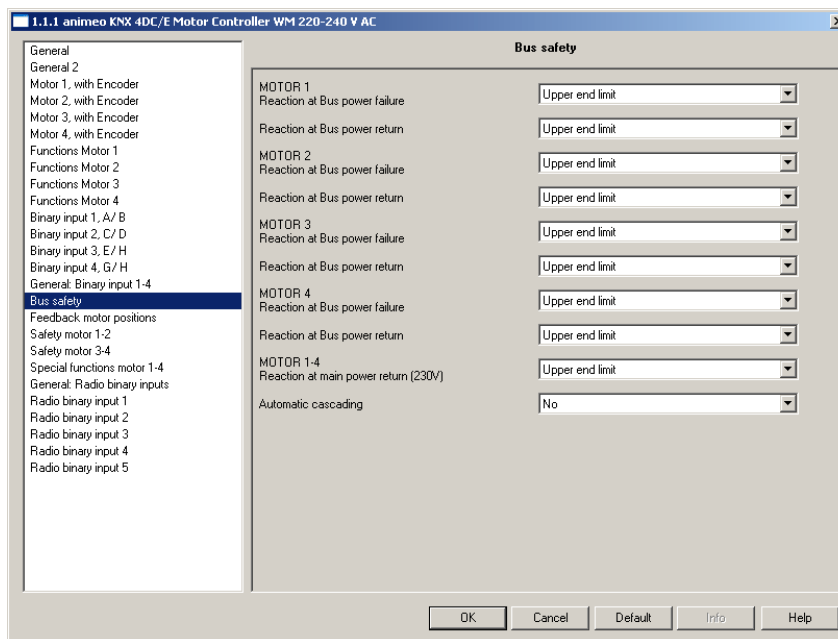
This parameter opens the parameter to set the telegram rate limitation. In addition, the number of the telegrams which are transmitted cyclically per time unit can be limited.

Limit

- Options:
- 30 telegrams pro 17 sec.
 - 60 telegrams pro 17 sec.
 - 100 telegrams pro 17 sec.
 - 127 telegrams pro 17 sec.

This parameter defines the number of telegrams which can be transmitted within 17 seconds.

6.8 Menu index card "Bus safety"



On this menu index card, the reaction can be defined for every single motor output with bus power failure and bus power return.

MOTOR 1 ... 4

Reaction at Bus power failure

Options:

- *Upper end limit*
- Lower end limit
- Ignore
- Intermediate position 1
- Intermediate position 2

This parameter defines the position which is moved to with a bus power failure.

MOTOR 1 ... 4

Reaction at Bus power return

Options:

- *Upper end limit*
- Lower end limit
- Ignore
- Intermediate position 1
- Intermediate position 2

This parameter defines the position which is moved to with a bus power return.

MOTOR 1 - 4

Reaction at mains power return (230V)

Options:

- *Upper end limit*
- Lower end limit
- Ignore

This parameter defines the position which is moved to with a mains power return (230 V).

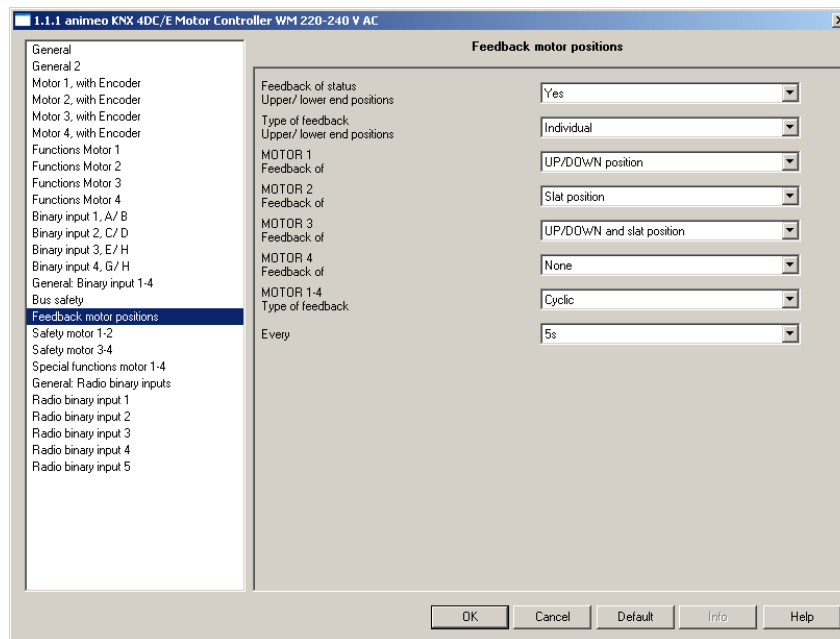
Automatic cascading

- Options:
- No
 - Yes

If this parameter is set on "Yes", the motor outputs with one second delay in each case move to the corresponding position. This delay time is taken into account with the start-up of the positions, which are generated from the settings "Reaction with bus voltage return" and "Reaction with mains voltage return (230 V)".

△ Advantage: Power spikes can thus be reduced in larger projects.

6.9 Menu index card "Feedback motor positions"



On this menu index card the parameters can be selected to announce the position status of the individual blinds on the bus. In addition, the generated status positions are based on the parametered running and tilting times of the menu index cards motor 1 ... 4 or motor 1 - 4.

Feedback of status Upper/lower end positions

- Options:
- No
 - Yes

This parameter opens the parameter "Type of messaging".

Type of feedback Upper/lower end positions

- Options:
- Combined if all are up/down
 - Individual

• Combined if all are up/down

If this parameter is selected, the corresponding upper or lower end position is only announced on the bus, when all four blinds have reached the upper (object 59) or lower (object 64) end position.

• Individual

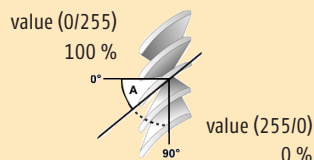
If this parameter is selected, the corresponding upper or lower end position is announced on the bus for each blind individually. Here, the objects in each case (55-58 and 60-63) are made available.

MOTOR 1...4

Feedback of

Options:

- UP/DOWN position
- Slat position
- UP/DOWN and slat position
- *None*



• UP/DOWN position

Using this parameter the position UP/DOWN is sent on the bus for the corresponding motor depending on the parameter "Type of messaging" "0" = upper / "255" = lower.

• Slat position

With this parameter the slat position is transmitted for the corresponding motor depending on the parameter "Type of messaging" on the bus. "0/255" = slats opened / "255/0" = slats closed. The value for the position of the slats which is transmitted over the corresponding object is dependent on the parameter settings on the menu index card "General".

Slats turn Closed/Turned ONLY WITH VENETIAN BLIND.

• UP/DOWN and slat position

With this parameter the position UP/DOWN and the position of the slats for the corresponding motor is transmitted on the bus depending on the parameter "Type of messaging". "0" = upper / "255" = lower, "0/255" = slats opened / "255/0" = slats closed. The value for the position of the slats which is transmitted over the corresponding object is dependent on the parameter settings on the menu index card "General".

Slats turn Closed/Turned ONLY WITH VENETIAN BLIND.

• *None*

No positions on the bus are messaged.

Motor 1 - 4

Type of feedback

Options:

- *On demand*
- Status change
- *Cyclic*

• *On demand*

The current position of the blinds must be requested over object 54.

• Status change

The current position of the corresponding blind is transmitted after every position change on the bus. The position is transmitted on the bus when the destination position is reached.

• *Cyclic*

This parameter opens a further parameter ("Every") with which the time for cyclical sending is set.

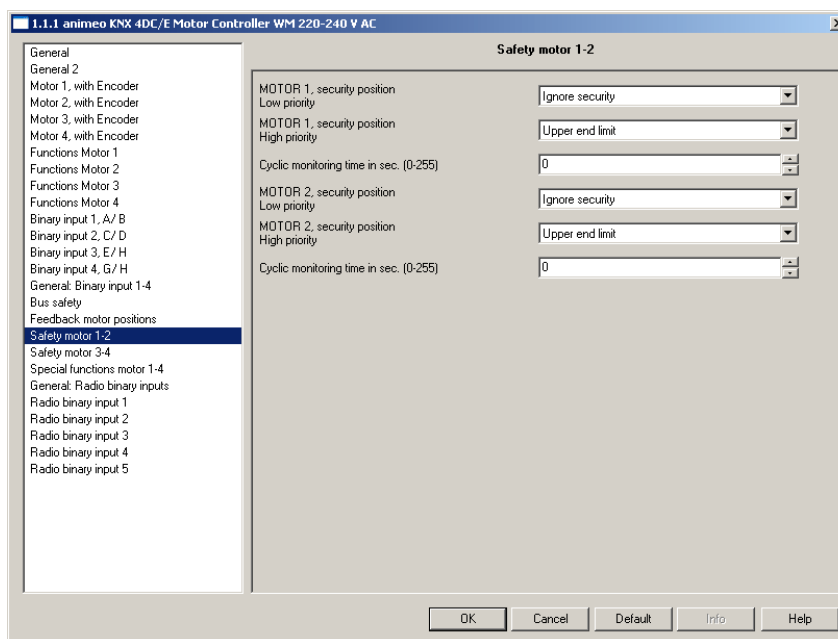
Every

Options:

- 5 seconds
- 10 seconds
- 20 seconds
- 30 seconds
- 60 seconds
- 15 minutes
- 30 minutes
- 60 minutes
- 120 minutes

⚠ With this parameter it is defined in which time intervals the current position of the corresponding blinds are messaged. The current position of the blinds is transmitted on the bus only during the move.

6.10 Menue index card "Safety motor 1-2 / motor 3-4 / motor 1-4"



Two single menu index cards (Safety motor 1-2/Safety motor 3-4) become visible if on the menu index card "General" the basic settings of the motors are set on "Individual". One menu index card (Safety motor 1-4) becomes visible if on the menu index card "General", the basic setting of the motors is parametered on "Combined".

Below the parameters for motor 1 are described. The parameters for motor 2-4 are corresponding.

MOTOR 1, security position Low priority

- Options:
- Upper end limit
 - Lower end limit
 - Intermediate position 1
 - Intermediate position 2
 - *Ignore security*
 - Stop

The "Security position low priority" for the corresponding blind is determined with this parameter. If a telegram with the value "1" is received on one of these communication objects (objects 32-36), the corresponding blind moves to the position parametered in the ETS parameters. If a telegram with the value "0" is received on one of these communication objects, no operation is carried out. Only if in the ETS parameters "Repeat the last telegram after security (Yes)" is selected, this operation will be carried out for the corresponding blind. If one of these communication objects is active by a telegram with the value "1" and a telegram with the value "1" is received on one of these communication objects 37-41 (security position, high priority), the corresponding blind moves to the position parametered in the ETS parameters (security position, high priority).

MOTOR 1, security position High priority

- Options:
- *Upper end limit*
 - Lower end limit
 - Ignore security

The "Security position high priority" for the corresponding blind is determined with this parameter. If a telegram with the value "1" is received on one of these communication objects (objects 37-41), the corresponding blind moves to the position parametered in the ETS parameters. If a telegram with the value "0" is received on one of these communication objects, no operation is carried out. Only if in the ETS parameters "Repeat the last telegram after security (Yes)" is selected, this operation will be carried out for the corresponding blind.

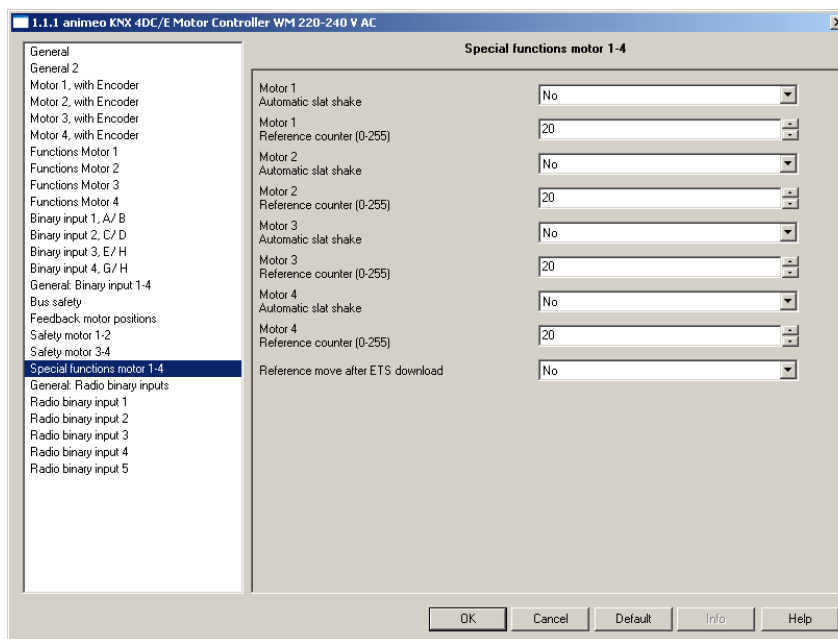
Cyclic monitoring time in sec. (0-255)

- Options:
- 0
 - 0 - 255

The cyclic monitoring time is active, as soon as a higher value than "0" is entered and refers to both security objects, low and high priority.

- ⚠ With active cyclic monitoring time, attention must be paid to the fact that the time of the cyclic transmitter is lower approx. 1/4 than the parametered cyclic monitoring time for both security objects, low and high priority.
If the predefined value "0" remains set, the security objects react statically to the values "1" and "0".

6.11 Menu index card "Special functions motor 1-4"



Below the parameters for motor 1 are described. The parameters for motor 2-4 are corresponding.

- ⚠ This card is only visible with "Selection motor type DC with encoder" on the card "General".

Motor 1 Automatic slat shake

- Options:
- No
 - Yes

With selection of "Yes" the slats tilt automatically when reaching the lower end limit. Here, the slats are once completely opened and closed.

- ⚠ This function allows to possibly set up the slats automatically. It may happen that during a DOWN order some slats get entangled in the tilting cords and therefore do not stop in the mechanical default position. With a complete opening and closing of the slats the entangled ones go back into the mechanical default position.

Motor 1 Reference counter (0-255)

- Options:
- 20
 - 0 - 255

This parameter defines when a reference move is carried out. It means, for example, that after 20 Up/Stop telegrams a reference move will be carried out.

△ See also chapter 1, Definitions

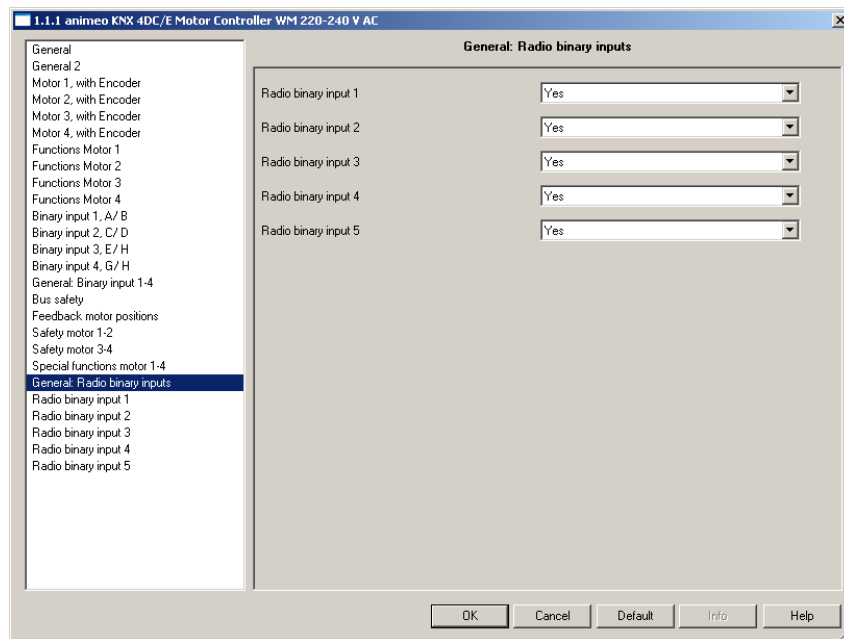
Motor 1-4 Reference move after ETS download

- Options:
- No
 - Yes

With selection of "Yes", a reference move is carried out with each ETS download.

△ See also chapter 1, Definitions

6.12 Menu index card "General: Radio binary input"



General information for radio binary input

For every radio binary input there are five different basis functions for selection:

- Options:
- Venetian blind UP/DOWN
 - Switch/Dry contact
 - 8-Bit value (rising edge)
 - Dimming
 - Slow tilting

The single functions and parameters which arise depending on the selection of the basis functions are now described. To illustrate this, another basis function has been selected for each radio input. The functions are described with the help of the radio input 1 (channel A) and are identical for the radio inputs 2 - 5 (channel B, C, D and E).

The preset of the basis function for the menu index card radio input 1... 5 is Venetian blinds UP / DOWN.

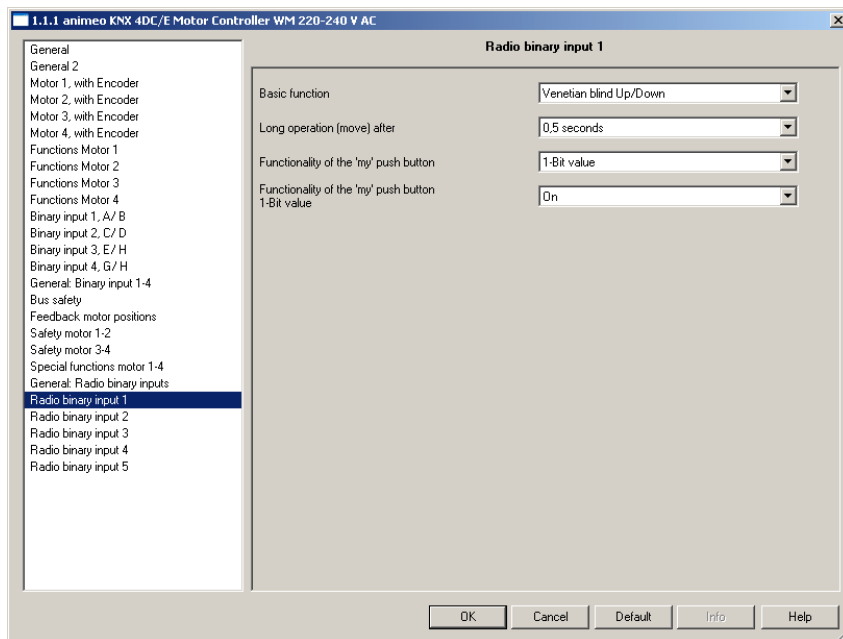
Radio binary input 1... 5

For every radio input there are five different basis functions for selection:

- Options:
- No
 - Yes

With choosing "Yes" the additional menu index cards "Radio binary input 1...5" become visible. At the same time the necessary objects appear.

6.13 Menu index card "General: Radio binary input 1...5"



Basis function

- Options:
- Venetian blind Up/Down
 - Switch/Dry contact
 - 8-Bit value
 - Dimming
 - Slow tilting

Long operation (move) after

- Options:
- 0.5 seconds
 - 0.3...5.0 seconds

This parameter defines the activity time of the corresponding transmitter push button which distinguishes between the sending of a short-term telegram (Step/Stop) and a long-term telegram (UP/ DOWN). If the time, for example, is parametered on 0.5 seconds, then only after a pressing of more than 0.5 seconds is a long-term telegram generated. With a pressing of the push button which is shorter than 0.5 seconds, a short-term telegram is generated.

Functionality of the "my" push button

- Options:
- 1-Bit value
 - 8-Bit value
 - No function (no evaluation)

Functionality of the "my" push button

1-Bit value

Options:

- On
- Off
- Toggle
- No function (no evaluation)

On ("1") Off ("0") Toggle ("1/0")

• On

If the "my" button in the radio transmitter is pressed, the object value "On" is generated. The duration of the activity is not evaluated.

• Off

If the "my" button in the radio transmitter is pressed, the object value "Off" is generated. The duration of the activity is not evaluated.

• Toggle

If the "my" button in the radio transmitter is pressed, the object value "At" is generated. The duration of the activity is not evaluated.

• No Function (no evaluation)

If the "my" button in the radio transmitter is pressed, this is not evaluated.

8-Bit value (rising edge)

Options:

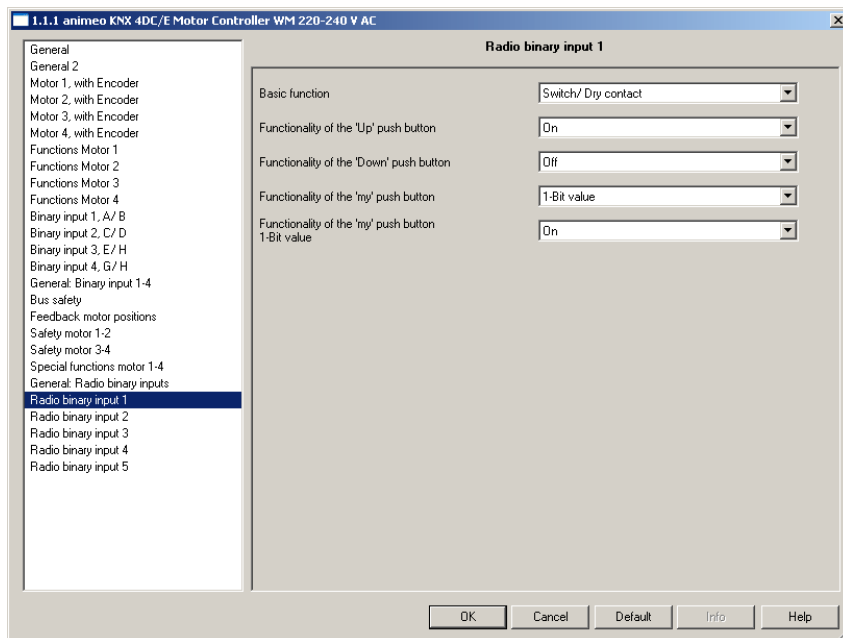
- 0
- 0 - 255

• 0 - 255

With this parameter the value is set which is transmitted while pressing the "my" button in the radio transmitter.

• No function (no evaluation)

If the "my" button in the radio transmitter is pressed, this is not evaluated.



Options:

- Venetian blind UP/DOWN
- Switch/Dry contact
- 8-Bit value
- Dimming
- Slow tilting

Functionality of the "UP" push button

Options:

- On
- Off
- Toggle
- No function (no evaluation)

On ("1") Off ("0") Toggle ("1/0")

- On**
If the "my" button in the radio transmitter is pressed, the object value "On" is generated. The duration of the activity is not evaluated.
- Off**
If the "my" button in the radio transmitter is pressed, the object value "Off" is generated. The duration of the activity is not evaluated.
- Toggle**
If the "my" button in the radio transmitter is pressed, the object value "At" is generated. The duration of the activity is not evaluated.
- No function (no evaluation)**
If the "my" button in the radio transmitter is pressed, this is not evaluated.

Functionality of the "DOWN" push button

Options:

- On
- Off
- Toggle
- No function (no evaluation)

On ("1") Off ("0") Toggle ("1/0")

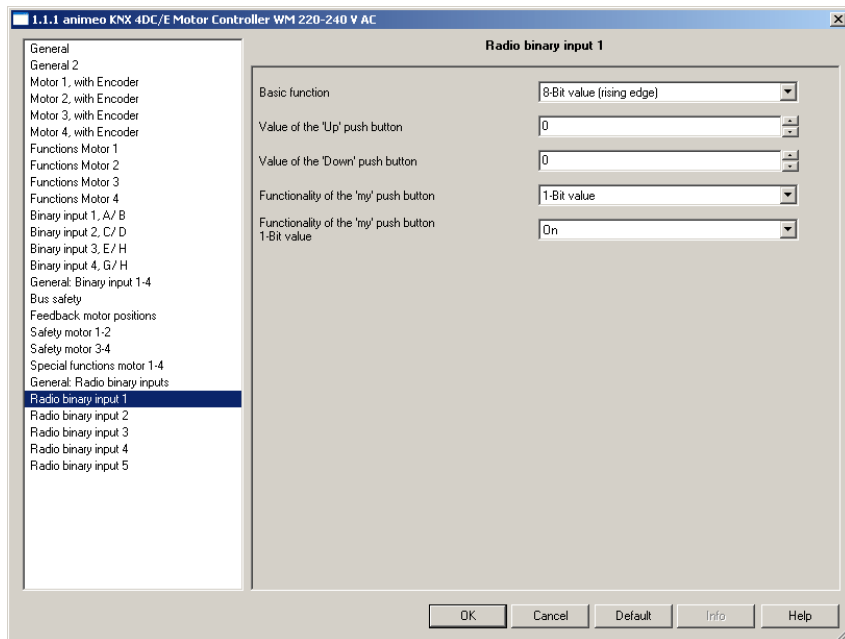
For a description please see "Function of the "UP" button with shadow".

Functionality of the "my" push button

Options:

- 1-Bit value
- 8-Bit value
- No function (no evaluation)

For a description please see "Function of the "my" button with Venetian blind UP / DOWN".



Options:

- Venetian blind Up/Down
- Switch/Dry contact
- 8-Bit value
- Dimming
- Slow tilting

Value of the "Up" push button

Options:

- 0
- 0 - 255

0 - 255

With this parameter the value is set which is transmitted while pressing the "UP" button in the radio transmitter.

Value of the "Down" push button

Options:

- 0
- 0 - 255

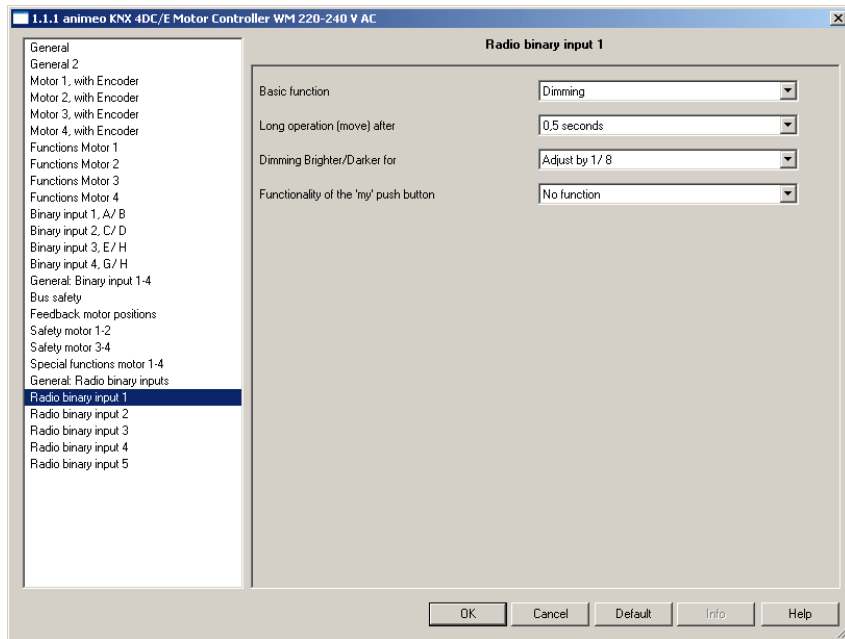
For a description please see "Functionality of the "UP" button with 8-Bit value".

Functionality of the "my" push button

Options:

- 1-Bit value
- 8-Bit value
- No function (no evaluation)

For a description please see "Functionality of the "my" button with Venetian blind UP/DOWN".



Basic function

- Options:
- *Venetian blind Up/Down*
 - *Switch/Dry contact*
 - *8-Bit value*
 - Dimming
 - *Slow tilting*

Long operation (move) after

- Options:
- *0.5 seconds*
 - *0.3...5.0 seconds*

This parameter defines the pressing time of the corresponding transmitter push button (Up/Down) which makes a distinction between the sending of a short-term telegram (On/Off) and a long-term telegram (Brighter/darker dimming). If the time, for example, is set at 0.5 seconds, a long-term telegram is generated after a longer pressing than 0.5 seconds. With a pressing duration which is shorter than 0.5 seconds, a short-term telegram is generated.

Dimming brighter/darker for

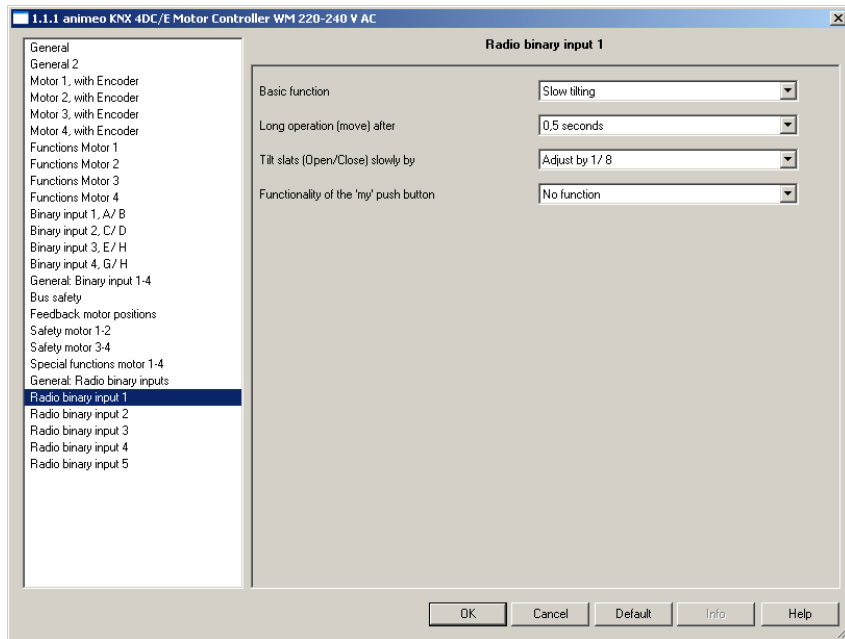
- Options:
- *Adjust 1/8*
 - *Adjust 100 % ... 1/64*

This parameter defines the dimming step length which is transmitted as a telegram with a long pressing of the push button.

Functionality of the "my" push button

- Options:
- *1-Bit value*
 - *8-Bit value*
 - *No function (no evaluation)*

For a description please see "Functionality of the "my" button with Venetian blind UP/DOWN".



Basic functions

- Options:
- *Venetian blind UP/DOWN*
 - *Switch/Dry contact*
 - *8-Bit value*
 - *Dimming*
 - *Slow tilting*

Long operation (move) after

- Options:
- *0.5 seconds*
 - *0.3...5.0 seconds*

This parameter defines the pressing time of the corresponding transmitter push button (Up/Down) which makes a distinction between the sending of a short-term telegram (Up/Down) and a long-term telegram (Open/Close). If the time, for example, is set at 0.5 seconds, a long-term telegram is generated after a longer pressing than 0.5 seconds. With a pressing duration which is shorter than 0.5 seconds, a short-term telegram is generated.

Tilts slat (open/close) slowly by

- Options:
- *Adjust 1/8*
 - *Adjust 100 %...1/64*

This parameter defines the tilting of the Venetian blinds which is transmitted as a telegram with a long pressing of the push button.

Functionality of the "my" push button

- Options:
- *1-Bit value*
 - *8-Bit value*
 - *No function (no evaluation)*

For a description please see "Function of the "my" button with Venetian blind UP/DOWN".

7 **Diagnosis**

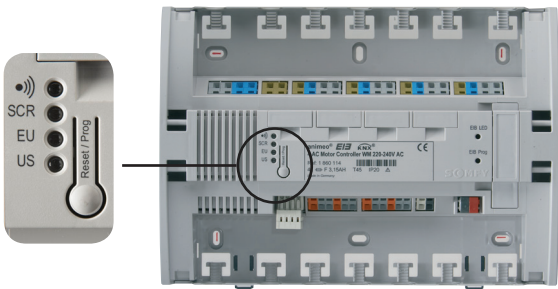
7.1 **LEDs on the animeo KNX Motor Controller**

The LEDs on the animeo KNX Motor Controller can be used for the following functions:

- Functionality of the device during operation (230 V / KNX bus voltage conncted, indication via radio signals, ...)
- A limited overview of the settings

7.2 **Informationen during operation**

Receiving of radio message
Safety low/high or object "block function" is active
The device is ready for operation, display reception KNX telegram



7.3 **Status of the configuration**

⚠ The call-up of the status of configuration is possible only in the delivery state, before the device was programmed with the ETS. As soon as the device is programmed with the ETS, the status of the configuration can no longer be called up over the Reset/Prog button. When the device is unloaded by the ETS, the status of the configuration can be called up again over the Reset/Prog button. A call-up of the status is always possible over radio functionality (green upper LED).

LED	On (2 s)	Blinking
•))) = Green	Radio operation acknowledged	No radio operation
SCR = Yellow	Vertical awning with saved running and tilting times	Vertical awning without saved running and tilting times
EU = Orange	Venetian blinds EU ergonomics with saved running and tilting times	Venetian blinds EU ergonomics without saved running and tilting times
US = Red	Venetian blinds US ergonomics with saved running and tilting times	Venetian blinds US ergonomics without saved running and tilting times

For an explanation of EU / US ergonomics see chapter 1 Definitions.

7.4.1 Warning LED (⚠) on the Motor Controller

When an UP or DOWN command is given and the warning LED flashes red (⚠ excess current), the following points must be checked:

- Short circuit on the motor output or at least a wire is not connected.
- Encoder wire (purple) is connected incorrectly on the motor output (e.g. M1 connector 1 or 2).
- A DCE motor is connected, the Motor Controller is however in the DC mode.
- A DC motor is connected, the Motor Controller is however in the DCE mode.

In the mode selection DCE:

When an UP or DOWN command is given and the warning LED flashes yellow (⚠ regulator error), the set speed concerning the size of the Venetian blinds is too high. The set time for the UP and DOWN direction must be appropriate (increased).

7.4.2 Visual display with error identifying

Motor 1
 Motor 2
 Motor 3
 Motor 4

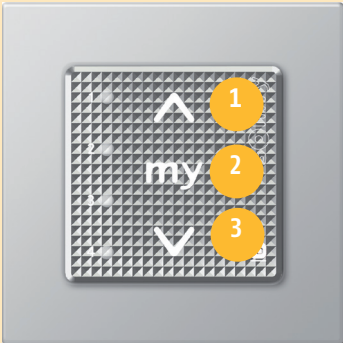


To switch off the error display briefly press the Reset/Prog button (0.5 seconds).

8

Push button configuration of the radio transmitters

		Venetian blind UP / DOWN	Switch (1 Bit)	8-Bit value	Dimming/Venetian blinds turn slowly
1	UP button	UP / Step / Stop	ON / OFF / Toggle / No function	VALUE	ON / Brighter
2	"my" button	ON / OFF / Toggle / VALUE / No function			
3	DOWN button	DOWN / Step / Stop	ON / OFF / Toggle / No function	VALUE	OFF / Darker



		Venetian blind UP / DOWN	Switch (1 Bit)	8-Bit value	Dimming/Venetian blinds turn slowly
1	UP button	UP / Step / Stop	ON / OFF / Toggle / No function	VALUE	ON / Brighter
2	"my" button	ON / OFF / Toggle / VALUE / No function			
3	DOWN button	DOWN / Step / Stop	ON / OFF / Toggle / No function	VALUE	OFF / Darker
4	Scroll wheel	Step / Stop	---	---	Brighter / Darker



KNX 4 DC/E Motor Controller	Art. 1860127
Supply voltage	220 - 230 V AC / 50/60 Hz
Stand-by current (IEC 62301)	< 0.05 A@ 230 V AC
Stand-by power (IEC 62301)	< 4 W@ 230 V AC
Supply voltage from KNX bus	KNX voltage 21...30 V DC, SELV
Rated current consumption KNX	As per KNX guidelines, 10 mA
Max. motor current consumption	4 x 0.6 A@ 24 V DC
Supply voltage of group control input	SELV, 16 VDC ===
Supply voltage of local push buttons	SELV, 16 VDC ===
Outputs	Short circuit protected
Terminals	Spring connectors
Terminal KNX	KNX bus terminal (black/red)
Running time per output	Max. 5 minutes or 5000 mm
Operating temperature	- 5° C - 45° C
Relative humidity	Max. 85 %
Material of housing	PC-ABS
Housing dimensions (h x w x d)	180 x 255 x 61 mm
Weight	790 g
Degree of protection	IP 20
Protection class	II
Conformity	www.somfy.com/ce

10

Der Motor Controller is an electronically and manually-operated, independently-mounted control.

Software class:	A
Action:	Type 1
Pollution degree:	2
Rated impulse voltage:	4 kV
Temperature of ball hardness test:	87° C
Type of fixing:	Type X
Method of attachment for non detachable cords:	Screwless spring terminal
EMC emission test:	U _{AC} = 230 V AC I _{AC} = 0.05 A (EN 55022 class B emission)

Somfy Activités SA
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74300 Cluses

www.somfy.com/projects

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