# animeo<sup>©</sup> KNX 4 DC 2 A Motor Controller WM 24 V DC Installation manual



Ref. 1860128



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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. clotted or extensive clotted 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 2 A Motor Controller WM 24 V DC 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, roller blinds, windows, curtains and louvers. By using the animeo RTS radio module, four motors can be controlled via remote individually and per device.

#### **Functions and Advantages**

- Time saving through easy installation, for example, with spring clips, pull relief with cable binders, sufficient clip space ...
- 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 four local push button inputs can be used as maximum 8 universal KNX binary inputs, for example, to connect window contacts, temperature sensors, or occupancy detectors. Using a conventional push button, light actuators can also be controlled and dimmed. Via the dimming object, Venetian blinds can also be turned slowly.
- 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.
- Position feedback of the connected motors during the move and when reaching the upper and bottom end positions.
- Two free configurable security levels per motor output.
- Excess current and short circuit identifying with LED display and response via object for every single motor.
- Free configurable action at mains power return and response via object.
- 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.
- Alternatively the animeo KNX RTS Receiver (ref. 1860191) or animeo KNX EnOcean RTS Receiver (ref. 1860229) can be installed as well. Up to 5 universal KNX radio binary inputs (e.g. light on/off with dimming) can be realised via radio without any additional wiring efforts.



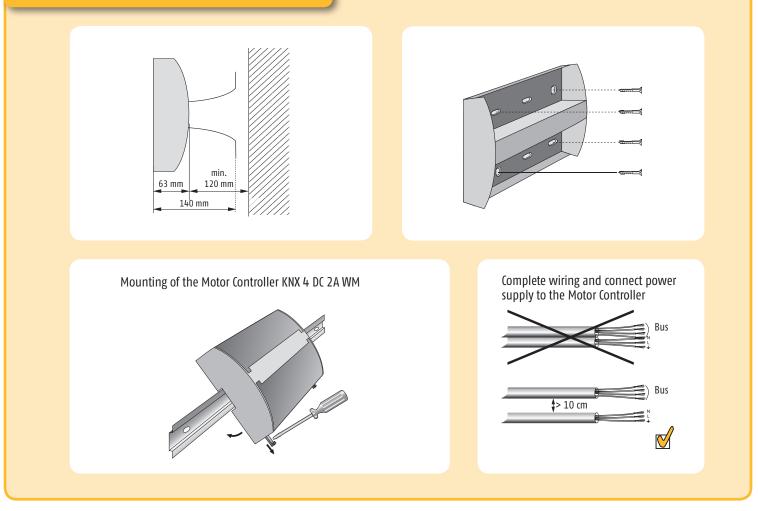
A complete parametering and programming is only possible when there is a power supply and KNX bus voltage on the KNX Motor Controller. When only KNX bus voltage is present, only the physical address can be programmed.

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

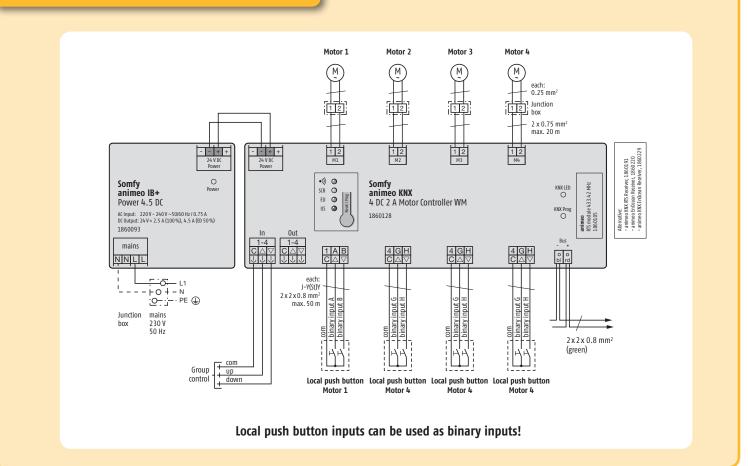
Manual order	A manual order is a command generated by a local conventional switch or by a Somfy RTS radio hand transmitter. A telegram received on the objects 1-8 is also understood as manual command.
Automatic order	A telegram received on the objects 8-16 is understood as an automatic order.
US switch ergonomics	With this parameter it is specified that the Venetian blind is headed in US ergonomics over the local switch inputs or over Somfy RTS radio hand transmitter. Short manipulation of the switch (< 0.5 s): A move command is executed. Long manipulation of the switch (> 0.5 s): A tilting command is executed as long as the switch is pressed. When releasing the switch the tilting command is stopped. If the current position of the Venetian blind is outside the tilting time, a driving command is implemented with pressed button.
EU switch ergonomics	With this parameter it is specified that the Venetian blind is headed in European Union ergonomics over the local switch inputs or over Somfy RTS radio hand transmitter. Short manipulation of the switch (< 0.5 s): A tilting step is implemented. Long manipulation of the switch (> 0.5 s): A tilting command is implemented as long as the switch is pressed. If the current position of the Venetian blind is outside the tilting time, a driving com- mand is executed.
Screen, roller blind, window, curtain, louver switch ergonomics	With this parameter it is specified that the end product is headed for screen (roller blinds) ergonomics over the local switch inputs or over Somfy RTS radio hand transmitter. Short manipulation of the switch when the end product is in full swing: A stop command is ex- ecuted. Long manipulation when the end product is not in full swing: A driving command is executed.
Running time	Running time is the time, the corresponding end product needs from the upper end position to the bottom end position. The time for the UP move and for the DOWN move can be individually parametered.
Tilting time	Tilting time is the necessary time for the slats to make one complete turn.

# 2.1 Slat position

	<u>Venetian blind 90</u> Angle: Tilting: KNX Byte value:	90° 90° 0% 255 or 0	<u>Venetian blind 9</u> Angle: Tilting: KNX Byte value:	0°/-90° 0° 50% 127	<u>Venetian blind 9</u> Angle: Tilting: KNX Byte value:	<u>0°/-90°</u> -90° 100% 0 or 255
	<u>Venetian blind 90</u> Angle: Tilting: KNX Byte value:	<u>)°/0°</u> 90° 0% 255 or 0	<u>Venetian blind 9</u> Angle: Tilting: KNX Byte value:	0°/0° 0° 100% 0 or 255		
	~	~				
Tilting o	direction	Tilting direction	Tilting	direction		
	Max. closed	Мах	reversed			
V	enetian blind 90°/0		olind 90°/0°			
Ver	Max. closed netian blind 90°1-90		reversed ind 90°1–90° Ve	Max. reversed netian blind 90°/-	-90°	



## 4 Wiring diagram



## 4.1 Motor outputs

#### Max. current per output: 2,1 A.

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

	SOME AND BEING AND		
LV 25-B44, -B64	LW 25-B44, -B83	LT 28-B73	J101
2 wires	2 wires	2 wires	2 wires

Compatibility as well with the following motors: Mingardi EURO 1, MICRO S, MICRO L, MICRO ONE, S1, MICRO O2, MOCRO XL, MICRO 92

The compability is only guaranteed when the following power supply is used: **Somfy animeo IB+ Power 4,5 DC (Ref. 1860093)**. Depending on the quantity of motors connected per motor output, one or two power supplies are necessary.

 $\Delta$  Control of non Somfy motors only on request and after approval by Somfy.

#### 4.2 Cabling $\Delta$ As soon as 230 V and the KNX bus voltage supply are attached the "US" LED will blink regularly. FU The device is operational when the "US" LED is blinking continuously. CABLE Connections to ... Cables **Twisted pairs** Max. distance **Motors** Min.: 2 x 0.6 mm/22 AWG 20 m Max.: 2 x 2.5 mm<sup>2</sup>/13 AWG $\Delta$ The max. distance of the motor cables depends on the current consumption of the connected motors. The diameter of the cable must also be taken into account. **Switches** Min.: 3 x 0.6 mm/22 AWG Recommended 100 m Max.: 3 x 2.5 mm<sup>2</sup>/13 AWG Group control Min.: 2 x 0.6 mm/22 AWG Recommended 50 m Max.: 2 x 1.5 mm<sup>2</sup>/15 AWG **KNX Bus** 2 x 0.8 mm/20 AWG Required, following KNX topology guidelines 24 V DC Min.: 2 x 1.5 mm<sup>2</sup>/15 AWG 10 m123 Max.: 2 x 2.5 mm<sup>2</sup>/13 AWG

## 4.3 Checking the running direction of the blinds

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

Over the group control input the running directions of the connected motors can be tested. All four motor outputs are switched together. This input can become disabled in the ETS parameters. In the case of a bus voltage failure it is always enabled in order to make an emergency operation possible.

Absolutely guarantee with start-up that the motors run into the correct direction. By cable links at the group control input this test can be accomplished.



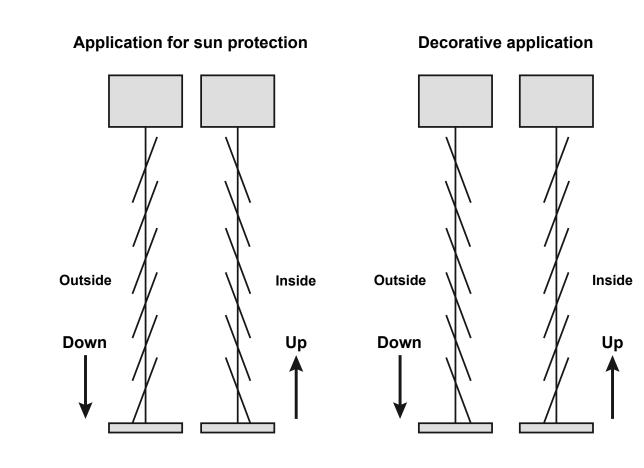
Check the correct direction of the end product

DOWN:The end product heads in the down direction (cable link between  $C + \nabla$ )STOP:The end product stops (cable link between  $C + \nabla + \Delta$ )UP:The end product heads in the up direction ( $C + \Delta$ )

## 4.4 Checking the turning direction of the slats

Should the Venetian blinds at the beginning of operation be moved down fully or partly, care must be taken when checking the turning direction for slats position (attention to manufacturer's instructions!).

If the slats position does not fit to the move direction, specified by the manufacturer, please correct the slats position only upon consultation of the blinds manufacturer. Then, the turning direction can be checked.



## animeo KNX 4 DC 2 A Motor Controller • REF. 5059105E - 8/50

## Settings on delivery status

The KNX Motor Controller 4 DC 2 A can be used in the factory-delivered state also without programming via ETS software. Sensible presettings are implemented in the device. These settings are valid for all four motor outputs.

#### **Running and turning times**

In the factory-delivered state or after setting back to the factory-delivered state, the pre-determined running and turning times/lengths are already preset.

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 buttons 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.

#### Function of the Reset/Prog button 5.1

△ Over this switch base settings at the Motor Controller KNX 4 DC 2 A can be made. These base settings are only possible in delivery status before the device is programmed with the ETS or after the device is unloaded by the ETS. The base settings are overwritten by the ETS settings.

#### 5.2 Selection of different user ergonomics

Over the Reset/Prog button different switch user ergonomics can be defined for the local switch inputs and/or Somfy RTS radio hand transmitters. These settings are only possible in delivery status before the device was programmed with the ETS or after the device became to unload by the ETS.

As soon as the device was programmed with the ETS the user ergonomics can no more be made over the Reset/Prog button. If the device became to unload by the ETS, setting of the user ergonomics is again possible over the Reset/Prog button.

Configuration of the animeo RTS radio module

Screen, roller blind ergonomics \*

Venetian blind, EU ergonomics\*

Venetian blind, US ergonomics \*

▲ The selection of the user ergonomics should be consistent with the appropriate end product.

•))) =

SCR

EU =

US

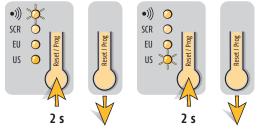
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\* See chapter 2 "Definitions"



Change the ergonomics:



The delivery status is Venetian blind with EU ergonomics.

•))) •))) •))) SCR SCR  $\bigcirc$ SCR  $\bigcirc$ 0 EU EU EU  $\mathcal{O}$ US 0 US US

2 s

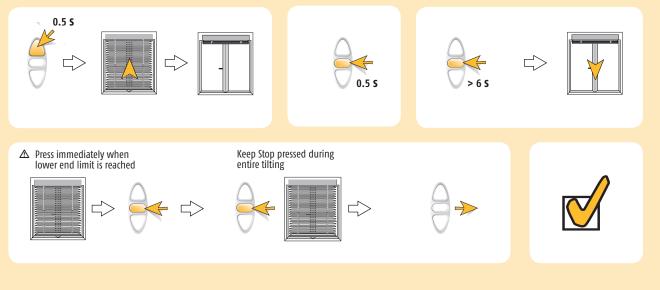


To switch between the different ergonomics press Save and exit of configuration shortly the Reset/Prog button. Continue to do so until the desired LED is lighting. mode.

## 5.3 Manual setting of the running and tilting times

Over the local conventional switch and by radio hand transmitters the running and tilting times per motor output can be adjusted. These settings are only possible on delivery status before the device is programmed with the ETS. As soon as the device is programmed with the ETS, the running and tilting times cannot be programmed over the local conventional switches or by radio hand transmitters. If the device is unloaded by the ETS, it is again possible to program the running and tilting times over the local conventional switches or by radio hand transmitters.

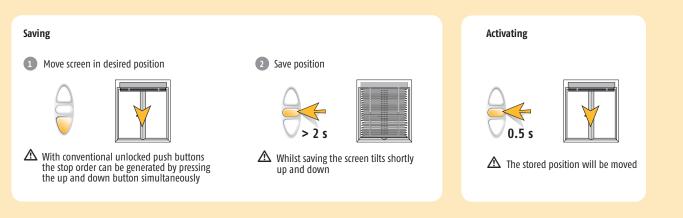
▲ As an alternative to the conventional switches the settings can also be done with Somfy RTS transmitter and animeo RTS radio module (ref. 1860105). It's not possible to do the setting with animeo KNX RTS Receiver (ref. 1860191) and Somfy RTS transmitter resp. animeo EnOcean Receiver (ref. 1860220) or animeo KNX EnOcean Receiver (ref. 1860229) and EnOcean transmitter is not possible!



## 5.4 Manual setting of the intermediate position 1

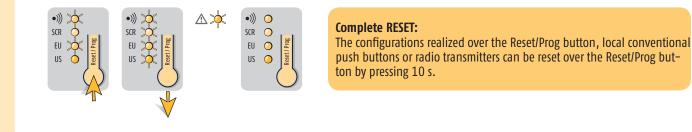
Intermediate position 1 can also be programmed over a conventional local switch or by radio hand transmitters individually per motor output. At the same time it is possible to define the intermediate position 1 over settings in the ETS parameters. Before the intermediate position 1 is programmed it is obligatory to set the running and tilting times.

▲ As an alternative to the conventional switches the settings can also be done with Somfy RTS transmitter and animeo RTS radio module (ref. 1860105). It's not possible to do the setting with animeo KNX RTS Receiver (ref. 1860191) and Somfy RTS transmitter resp. animeo EnOcean RTS Receiver (ref. 1860220) or animeo KNX EnOcean Receiver (ref. 1860229) and EnOcean transmitter is not possible!



## 5.5 Reset to delivery status

1. If the device <u>has not yet</u> been programmed with the ETS software.



2. If the device with the ETS software has already been programmed.

Unload		x
Access	Unload Application Program	
🕫 Remote 🔤	Unload Address & Application	]
Prompt before each device		
	Cancel	
Order Number   Product	Manufa	1
1860128 animeo KNX 4 DC 2A Motor Cc	ontroller WM 24 V DC Somfy	
	Þ	
Some devices may not react any more after unloa In this case, perform a bus reset or disconnect the for a few seconds.		//

If the device with the ETS has already been programmed, a reset to delivery status is not possible over the Reset/Prog button. Over the function "Unload" in the ETS all settings of the device can be reset to delivery status. The Reset/Prog button can then be used again.

## **5** Communication objects

A maximum of 150 communication objects are available, which however cannot be used at one time. Maximally 250 group addresses can be linked.

No.	Object name	Model	DPT_ID	Description
1	Motor 1 UP/DOWN, CLOSED/OPEN	1 Bit	1.001	If a telegram with the value "O" is received by this communication
2	Motor 2 UP/DOWN, CLOSED/OPEN	1 Bit	1.001	object, the corresponding blind is moved upwards or a window is closed. If a telegram with the value "1" is received, the corre-
3	Motor 3 UP/DOWN, CLOSED/OPEN	1 Bit	1.001	sponding blind is moved down or a window is opened. At the end of the set move time for UP or DOWN direction or the move time for
4	Motor 4 UP/DOWN, CLOSED/OPEN	1 Bit	1.001	opening or closing of the window, the relays of the outputs are freed.
5	Motor 1 STEP/STOP	1 Bit	1.001	Venetian blinds: If the Venetian blind is moving, the move is
6	Motor 2 STEP/STOP	1 Bit	1.001	stopped with the receiving of a telegram on one of these commu- nication objects, no matter whether "0" or "1" is received. If the
7	Motor 3 STEP/STOP	1 Bit	1.001	Venetian blind is stationary, a turn is carried out. In addition, the slats turn CLOSED with the receiving of a telegram with the value
8	Motor 4 STEP / STOP	1 Bit	1.001	"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. <b>Vertical awnings, roller shutters, awnings and windows:</b> 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.
9	Motor 1 Position UP/DOWN	1 Byte	5.004	If a telegram is received on one of these communication objects, the
10	Motor 2 Position UP/DOWN	1 Byte	5.004	corresponding blind will move to the position which is defined by the received value "0" = upper/"255" = lower.
11	Motor 3 Position UP/DOWN	1 Byte	5.004	Venetian blinds: When the position is reached, the same slats angle is moved to at which the Venetian blind was before.
12	Motor 4 Position UP/DOWN	1 Byte	5.004	▲ A time differnce of 2 seconds between the receipt of a telegram on the objects 9–12 and the receipt of a telegram on the objects 13–16 should be respected.
13	Motor 1 Slat position	1 Byte	5.004	<b>Venetian blinds:</b> If a telegram is received on one of these commu-
14	Motor 2 Slat position	1 Byte	5.004	nication objects, the corresponding slats will move to the position which is defined by the received value. If a Venetian blind is moving
15	Motor 3 Slat position	1 Byte	5.004	and receives a value on the corresponding object, the position of the slats is moved to only when the move has been completed.
16	Motor 4 Slat position	1 Byte	5.004	Depending on the parameter settings on the card index "General" the position is defined as follows: "255" = slats max. closed / "0" = slats max. closed / "0" = slats max. closed / "255" = slats max. turned value (0/255) "0"
17	Motor 1 Slow movement	4 Bit	3.008	If a telegram is received on one of these communication objects then
18	Motor 3 Slow movement	4 Bit	3.008	the Venetian blind slats move either slowly to maximal closed or maximal reversed position. The slats turning speed is parametered
19	Motor 3 Slow movement	4 Bit	3.008	on the card "Motor 14". This function is fulfilled by a longer oper- ating of a push button sensor application "dimming".
20	Motor 4 Slow movement	4 Bit	3.008	▲ These objects can also be controlled with conventional push but- tons when local push button inputs of the Motor Controller are used as universal binary inputs (basis function "dimming").
21	Motor 1 Move to IP 1	1 Bit	1.001	If a telegram with the value "1" is received on one of these commu-
22	Motor 2 Move to IP 1	1 Bit	1.001	nication objects, the corresponding blind moves to the ETS param- etered per local switch, or to the radio hand-transmitted, learned-in
23	Motor 3 Move to IP 1	1 Bit	1.001	intermediate position 1. In addition, the learned-in position is valid. With the receiving of a telegram with the value "O" on one of
24	Motor 4 Move to IP 1	1 Bit	1.001	these communication objects, the blinds 1–4 move to the upper end position.
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.

No.	Object name	Model	DPT_ID	Description
26	Motor 1 Move to IP 2	1 Bit	1.001	If a telegram with the value "1" is received on one of these commu-
20	Motor 2 Move to IP 2	1 Bit	1.001	nication objects, the corresponding blind moves to the intermediate
21	Motor 3 Move to IP 2	1 Bit	1.001	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.
29	Motor 3 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 Positition (IP) 2 param- etered 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 Security, low prio	1 Bit	1.001	If a telegram with the value "1" is received on one of these com-
32	Motor 2 Security, low prio	1 Bit	1.001	munication objects, the corresponding blind moves to the position parametered in the ETS parameters. With the receiving of a telegram
33	Motor 3 Security, low prio	1 Bit	1.001	with the value "0" on one of these communication objects, no op- eration is carried out. Only when "Repeat last telegram after security
34	Motor 4 Security, low prio	1 Bit	1.001	(Yes)" has been selected in the ETS parameters, can the operation for the corresponding blind be carried out. If one of these communica- tion objects is activated by a telegram with the value "1" and on one of the communication objects 36–39 (Security, high prio) a telegram is received with the value "1", the corresponding blind moves to the position parametered in the ETS (Security, high prio).
35	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 40 (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).
36	Motor 1 Security, high prio	1 Bit	1.001	If a telegram with the value "1" is received on one of these com-
37	Motor 3 Security, high prio	1 Bit	1.001	munication objects, the corresponding blind moves to the position parametered in the ETS parameters. With the receiving of a telegram
38	Motor 3 Security, high prio	1 Bit	1.001	with the value "0" on this communication object no operation is carried out. Only when "Repeat last telegram after security (Yes)"
39	Motor 4 Security, high prio	1 Bit	1.001	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.
40	Motor 1 – 4 Security, high prio	1 Bit	1.001	If a telegram with the value "1" is received on this communica- tion object, the blinds 1-4 move to the IP 2 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 the operation for the blinds 1-4 can be carried out. In this case, when an object for "Security, low prio" is activated ("1"), the corresponding parametered position will be moved to.
41	Motor 1 Feedback UP/DOWN	1 Byte	5.004	On these communication objects the current position (UP / DOWN
42	Motor 2 Feedback UP/DOWN	1 Byte	5.004	direction) of the respective blind is sent to the bus, based on the programmed running time. The type of feedback (on demand, status
43	Motor 3 Feedback UP/DOWN	1 Byte	5.004	change, cyclic) is defined in the ETS parameters. "O" = UP / "255" = DOWN
44	Motor 4 Feedback UP/DOWN	1 Byte	5.004	

No.	Object name	Model	DPT_ID	Description
45	Motor 1 Feedback slat	1 Byte	5.004	On these communication objects the current position (UP/DOWN
46	Motor 2 Feedback slat	1 Byte	5.004	direction) of the respective blind is sent to the bus, based on the programmed running time. The type of feedback (on demand, status
47	Motor 3 Feedback slat	1 Byte	5.004	change, cyclic) is defined in the ETS parameters. "O" = UP / "255" = DOWN
48	Motor 4 Feedback slat	1 Byte	5.004	
49	Motor 1–4 Status positions	1 Bit	1.001	If a telegram with the value "1" or "0" is received on this com- munication object, the current status positions of the corresponding blinds are sent to the bus (objects 41–48).
50	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
51	Motor 2 Upper end position	1 Bit	1.001	reached. When leaving the upper end position of the corresponding
52	Motor 3 Upper end position	1 Bit	1.001	blind, a telegram with the value "O" is sent. The upper and lower end position is determined by the parametered move times.
53	Motor 4 Upper end position	1 Bit	1.001	
54	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 posi- tion, a telegram with the value "0" is sent. The upper and lower end position is determined by the parametered move times.
55	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
56	Motor 2 Lower end position	1 Bit	1.001	reached the lower end position. When leaving the lower end posi-
57	Motor 3 Lower end position	1 Bit	1.001	tion of the corresponding motor, a telegram with the value "O" is sent. The upper and lower end position is determined by the
58	Motor 4 Lower end position	1 Bit	1.001	parametered move times.
59	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 move times.
60	Motor 1 Block functions	1 Bit	1.001	If a telegram with the value "1" is received on one of these com-
61	Motor 2 Block functions	1 Bit	1.001	munication objects, the functions parametered in the ETS for the corresponding blind is blocked. If a telegram with the value "0" is
62	Motor 3 Block functions	1 Bit	1.001	received on one of these communication objects, the functions pa- rametered in the ETS for the corresponding blind is no longer blocked
63	Motor 4 Block functions	1 Bit	1.001	and freed again.
64	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 commu- nication object, the functions parametered in the ETS for the blinds 1–4 are no longer blocked and freed again.
65	Motor 1 Prio automatic/manual	1 Bit	1.001	Over these communication objects the priority automatic function
66	Motor 2 Prio automatic/manual	1 Bit	1.001	and priority manual function can be switched. If a telegram with the value "1" is received on one of these communication objects, the
67	Motor 3 Prio automatic/manual	1 Bit	1.001	automatic functions for the corresponding blind is priority activated. If a telegram with the value "O" is received on one of these commu-
68	Motor 4 Prio automatic/manual	1 Bit	1.001	nication objects, the manual functions for the corresponding blind is active.
69	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 correspondence
70	Motor 2 Reset priority	1 Bit	1.001	communication objects the priority switching for the correspond- ing blind is reset. Automatic functions or manual functions are then
71	Motor 3 Reset priority	1 Bit	1.001	switched to priority active again. Whichever priority is active depends on the status of the communication objects 65–68 or whichever
72	Motor 4 Reset priority	1 Bit	1.001	priority has been parametered in the ETS.

No.	Object name	Model	DPT_ID	Description
73	Switch 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 "O". 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.
74	Switch 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.
75	Switch 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".
76	Switch 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".
77	Switch input 1: A, 8-Bit value	1 Byte	5.004	According to the parameter settings, with a rising edge on input 1 contact A, the parametered value $(0-255)$ is sent.
78	Switch input 1: B, 8-Bit value	1 Byte	5.004	According to the parameter settings, with a rising edge on input 1 contact B, the parametered value $(0-255)$ is sent.
79	Switch input 1: A/B, Dimming	1 Bit	1.001	On/Off: According to the parameter settings, with a short pressing at the in- put 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 in- put 1 contact A/B, a telegram is generated with the value "1" or "0".
80	Switch 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 correspond- ing switch at the input B, a stop command is generated. The last activated dimming step becomes inverted.
81	Switch input 2: UP/DOWN	1 Bit	1.001	See object description 69, C/D instead A/B
82	Switch input 2: STEP/STOP	1 Bit	1.001	See object description 70. C/D instead A/B
83	Switch input 2: C, Switch	1 Bit	1.001	See object description 71, C instead A
84	Switch input 2: D, Switch	1 Bit	1.001	See object description 72, D instead B
85	Switch input 2: C, 8-Bit value	1 Bit	5.004	See object description 73, C instead A
86	Switch input 2: D, 8-Bit value	1 Bit	5.004	See object description 74, D instead B
87	Switch input 2: C/D, Dimming	1 Bit	1.001	See object description 75, C/D instead A/B
88	Switch input 2: C/D, Dimming, Value	4 Bit	3.007	See object description 76, C/D instead A/B
89	Switch input 3: UP/DOWN	1 Bit	1.001	See object description 69, E/F instead A/B
90	Switch input 3: STEP/STOP	1 Bit	1.001	See object description 70. E/F instead A/B
91	Switch input 3: E, Switch	1 Bit	1.001	See object description 71, E instead A

No.	Object name	Model	DPT_ID	Description
92	Switch input 3: F, Switch	1 Bit	1.001	See object description 72, F instead B
93	Switch input 3: E, 8-Bit value	1 Bit	5.004	See object description 73, E instead A
94	Switch input 3: F, 8-Bit value	1 Bit	5.004	See object description 74, F instead B
95	Switch input 3: E/F, Dimming	1 Bit	1.001	See object description 75, E/F instead A/B
96	Switch input 3: E/F, Dimming, Value	4 Bit	3.007	See object description 76, E/F instead A/B
97	Switch input 4: UP/DOWN	1 Bit	1.001	See object description 69, G/H instead A/B
98	Switch input 4: STEP/STOP	1 Bit	1.001	See object description 70. G/H instead A/B
99	Switch input 4: G, Switch	1 Bit	1.001	See object description 71, G instead A
100	Switch input 4, H, Switch	1 Bit	1.001	See object description 72, H instead B
101	Switch input 4: G, 8-Bit value	1 Bit	5.004	See object description 73, G instead A
102	Switch input 4: H, 8-Bit value	1 Bit	5.004	See object description 74, H instead B
103	Switch input 4: G/H, Dimming	1 Bit	1.001	See object description 75, G/H instead A/B
104	Switch input 4: G/H, Dimming, Value	4 Bit	3.007	See object description 76, 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 transmitter generates a telegram with the value "O". The Venetian blind moves UP. A longer pressing of the "DOWN" switch on channel 1 of the learned-in handheld transmitter 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 gener- ates 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 com- mand.
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 gener- ates a switching telegram with the value "1" or "0" on this commu- nication 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	Model	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 "O" 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 adjusted value "100 %, <sup>1</sup> / <sub>2</sub> , <sup>1</sup> / <sub>4</sub> , <sup>1</sup> / <sub>16</sub> , <sup>1</sup> / <sub>32</sub> or <sup>1</sup> / <sub>64</sub> " on this communication object. The lights dim 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 "100 %, <sup>1</sup> / <sub>2</sub> , <sup>1</sup> / <sub>4</sub> , <sup>1</sup> / <sub>16</sub> , <sup>1</sup> / <sub>32</sub> or <sup>1</sup> / <sub>64</sub> " on this commu- nication 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 Slow tilting UP/DOWN	1 Bit	1.001	See object description 118, channel 2 instead channel 1
129	Radio input 2: Dimming Brighter/Darker or Slow tilting OPEN/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: Switch "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: Switch "UP" button	1 Bit	1.001	See object description 114, channel 3 instead channel 1
135	Radio input 3: Switch "DOWN" button	1 Bit	1.001	See object description 115, channel 3 instead channel 1
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 Slow tilting UP/DOWN	1 Bit	1.001	See object description 118, channel 3 instead channel 1
139	Radio input 3: Dimming Brighter/Darker or Slow tilting OPEN/CLOSE	4 Bit	3.007	See object description 110. channel 3 instead channel 1
140	Radio input 4: UP/DOWN	1 Bit	1.001	See object description 110. channel 4 instead channel 1

No.	Object name	Model	DPT_ID	Description
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: Switch "UP" button	1 Bit	1.001	See object description 114, channel 4 instead channel 1
145	Radio input 4: Switch "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 Slow tilting UP/DOWN	1 Bit	1.001	See object description 118, channel 4 instead channel 1
149	Radio input 4: Dimming Brighter/Darker or Slow tilting OPEN/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: Switch "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: Switch "UP" button	1 Bit	1.001	See object description 114, channel 5 instead channel 1
155	Radio input 5: Switch "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 Slow tilting UP/DOWN	1 Bit	1.001	See object description 109, channel 5 instead channel 1
159	Radio input 5: Dimming Brighter/Darker or Slow tilting OPEN/CLOSE	4 Bit	3.007	See object description 110. channel 5 instead channel 1
160	Mains power failure (230 V)	1 Bit	1.002	A mains power failure is signaled with this communication object. 20 seconds after the mains voltage cut out, a telegram with the value "1" is sent to the bus. With return of mains voltage this com- munication object sends the telegram with the value "0".

The options of the individual parameters are described in each case. The default values are shown in italic. In the following illustrations of the different menu index cards a maximum of parameters is always presented.

#### 7.1 Menu index card "General"

General		General	
General Motor 1 Motor 2 Motor 3 Motor 4 Functions Motor 1 Functions Motor 2 Functions Motor 3 Functions Motor 3 Functions Motor 4 Binay input 7, A/ B Binay input 3, E/ H Binay input 3, E/ H Binay input 4, G/ H Beneral: Binay input 1-4 Bus safety Feedback motor positions Safety motor 1-2 Safety motor 1-2 Safety motor 3-4 General: Radio binay inputs Radio binay input 1	Motor output configuration Motor 1 Automatic/ manual functions Motor 2 Automatic/ manual functions Motor 3 Automatic/ manual functions Use universal binary inputs Use radio binary inputs (only compatible with ref. 1860191/1860229 Slat position closed / reversed DNLY FOR VENETIAN BLINDS Group control input	General Individual None None None Yes Yes Max. closed (255) / Max. reversed (0) Disabled	× × × × × ×

#### **Basic setting of the motors**

Options: • Combined • Individual

With these parameters it can be specified whether the configurations of the motor outputs are to be done "Combined" or "Individual". If the parameter "Combined" is selected for the basic settings of all four motor outputs, only one menu index card will be visible (Motor 1-4).

▲ This setting ("Combined") is recommendable for projects where the configurations of the motor outputs are equal.

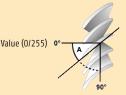
If the parameter "Individual" is selected for the basic settings of the motor outputs, four individual cards will be visible (Motor 1, Motor 2, ...).

#### Slat position closed/reversed ONLY FOR Venetian BLINDS

Options:	•	Max. closed (255) / Max. reversed (0)
	• 1	Max. closed (0) / Max. reversed (255)

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

If a value of "255" is received by the appropriate object (13-16) the slat will be maximal closed. If a value of "0" is received by the appropriate object (13-16) the slat will be maximal reversed.



Value (255/0)

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

If a value of "0" is received by the appropriate object (13-16) gesendet, the slat will be maximal closed. If a value of "255" is received by the appropriate objectt (13-16) gesendet, the slat will be maximal reversed.

#### Motor 1...4 Automatic/Manual functions

Options: • None

- Priority automatic funtions
- Priority manual funtions

#### • None

The moving commands are processed in detailed order.

### • Priority automatic function

If an automatic command (1 Byte move command) takes place <u>before</u> a manual command (1 Bit move command), all manual commands are disabled. Also the objects to move to the intermediate positions 1 and 2 (objects 21–30) are disabled. A manual command is generated also over the local switch inputs or the radio hand transmitter. A tilting command (1 Bit) can however, always be executed within the configured tilting time. A reset of the priority automatic function is effected if on the appropriate objects "Reset priority" (69– 72) a telegram with the value "1" or "0" is received. Switching between priority manual functions (value "0") and priority automatic functions (value "1") is made by the appropriate objects (65–68). Following adjust–over, the appropriate priority is active again in the reset state. This means for priority automatic functions that the manual commands become again disabled only through the next automatic command.

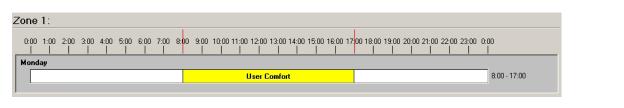
 $\Delta$  See explanations in chapter 2.

#### • Priority manual function

If a manual command (1 Bit) takes place <u>before</u> an automatic command (1 Byte), all automatic commands are disabled. A manual command is generated also over the local switch inputs or the radio hand transmitter. A reset of the priority manual functions is effected if a telegram with the value "1" or "0" is received on the appropriate object "Reset priority" (69–72). Switching between priority manual functions (value "0 ") and priority automatic functions (value "1") is made by the appropriate objects (65–68). Following adjust-over, the appropriate priority is active again in the reset state. This means for functions priority manual that the automatic commands become again disabled only through the next manual command.

 $\Delta$  See explanations in chapter 2.

 $\triangle$  Over the priority manual functions the user has the possibility to disable the automatic functions. For example, over a timer the user comfort can be defined. At 8:00 o'clock over the appropriate object (65–68) the priority manual functions are activated and the user can move the end product to a desired position with the next manual command. At 17:00 o'clock the priority automatic function is again activated. Over the appropriate object (65–68) it is always possible to switch between priority manual functions and priority automatic functions.Universal binary inputs use  $\triangle$  See explanations in chapter 2.





To adjust the timer it's ideal to use the façade controller animeo KNX Master Control W2 (ref. 1860187) or animeo KNX Master Control W8 (ref. 1860193).

#### Use universal binary inputs

Options:	• No
	<ul> <li>Yes</li> </ul>

With the parameter "Yes" four further menu index cards (binary input 1...4) are opened. The local switch inputs can be linked now over the appropriate objects (73–104). A conventional switch can be used thus for most diverse functions. For example switching, Venetian blind function, dimming or sending values.

#### **Radio binary input**

Options:	•	No
	٠	Yes

With the parameter "Yes" a menu index card ("General: radio binary input") is opened. In this menu index card five more can be activated (radio binary input 1...5). Now the radio channels can be linked over the appropriate objects (110 – 159). This makes the radio transmitter usable for several functions.

#### **Group control input**

Options:	•	Disabled
	•	Enabled

Over this parameter it can be specified whether the group control input is disabled or enabled. Over this input all four motors are moved at the same time. Independently of the parameter configurations the security configurations (objects 31–40) have higher priority. If one of the security objects is active the group control input is disabled.

 $\Delta$  With bus voltage failure this input is enabled even if it is disabled over the parameter configurations and can be used for an emergency operation. With bus power return this input is disabled or enabled according to the parameter configurations.

#### 7.2 Menu index card "Motor 1...4/Motor 1-4"

1.1.201 animeo KNX 4 DC 2A Motor Co	ntroller WM 24 ¥ DC			×
General			Motor 1	
Motor 1 Motor 2 Motor 3 Motor 4 Functions Motor 1 Functions Motor 2 Functions Motor 3 Functions Motor 4 Binay input 1, A/ B Binay input 2, C/ D Binay input 3, C/ H General: Binay input 1-4 Bus safety Feedback motor positions Safety motor 3-4 General: Radio binary inputs Radio binary input 1	Type of end product/ user ergonomics Running time UP (1-320s) Running time D0WN (1-320s) Complete tilting time Base 0.1s (0-100) Step length Base 0.05s (2-100) Tilting speed (0-100%) Slack compensation Base 0.1s (0-100) Tension relief when reaching the upper end limit Automatic slat shake		Venetian blind with US ergonomics       120       120       30       4       30       4       No       No	>
		OK	Cancel Default Info	Help

Four individual menu index cards (Motor 1...4) are visible when on the card "General" for the basic setting of the motor to "Individual" is parametered. An individual card (Motor 1-4) is visible when on the card "General" for the basic setting of the motor to "Combined" is parametered.

#### Type of end product/user ergonomics

- Options: Venetian blind with EU ergonomics
  - Venetian blind with US ergonomics
  - Roller blind
  - Window
  - Curtain
  - Louver

#### • Venetian blind with EU ergonomics

With this parameter it is specified that the Venetian blind is in EU ergonomics over the local switch inputs or over Somfy RTS radio hand transmitter. If the local switch inputs are used as universal binary inputs, the control ergonomics is defined over the appropriate parameters (short/long depressing the button). The user ergonomics via Sonfy RTS radio hand transmitter remains unchanged.

▲ See explanation EU, US, screen, roller blind, window, curtain, louver ergonomics in chapter 2 "Definitions".

#### • Venetian blind with US ergonomics

With this parameter it is specified that the Venetian blind is in US ergonomics over the local switch inputs or over Somfy RTS radio hand transmitter. If the local switch inputs are used as universal binary inputs, the control ergonomics is defined over the appropriate parameters (short/long depressing the button). The user ergonomics via Sonfy RTS radio hand transmitter remains unchanged.

▲ See explanation EU, US, screen, roller blind, window, curtain, louver ergonomics in chapter 2 "Definitions".

#### Roller blind

With this parameter it is specified that the appropriate end product is directed for move/stop commands, if the control is made by means of the local switch inputs or by Somfy RTS radio hand transmitter. If the local switch inputs are used as universal binary inputs, the control ergonomics is defined over the appropriate parameters (short/long depressing of the button). The user ergonomics via Sonfy RTS radio hand transmitter remains unchanged.

▲ See explanation EU, US, screen, roller blind, window, curtain, louver ergonomics in chapter 2 "Definitions".

#### Windows

With this parameter it is specified that the appropriate end product is directed for move/stop commands, if the control is made by means of the local switch inputs or by Somfy RTS radio hand transmitter. If the local switch inputs are used as universal binary inputs, the control ergonomics is defined over the appropriate parameters (short/long depressing of the button). The user ergonomics via Sonfy RTS radio hand transmitter remains unchanged.

▲ See explanation EU, US, screen, roller blind, window, curtain, louver ergonomics in chapter 2 "Definitions".

#### • Curtain

With this parameter it is specified that the appropriate end product is directed for move/stop commands, if the control is made by means of the local switch inputs or by Somfy RTS radio hand transmitter. If the local switch inputs are used as universal binary inputs, the control ergonomics is defined over the appropriate parameters (short/long depressing of the button). The user ergonomics via Sonfy RTS radio hand transmitter remains unchanged.

▲ See explanation EU, US, screen, roller blind, window, curtain, louver ergonomics in chapter 2 "Definitions".

#### Louver

With this parameter it is specified that the appropriate end product is directed for move/stop commands, if the control is made by means of the local switch inputs or by Somfy RTS radio hand transmitter.

If the local switch inputs are used as universal binary inputs, the control ergonomics is defined over the appropriate parameters (short/ long depressing of the button). The user ergonomics via Sonfy RTS radio hand transmitter remains unchanged.

⚠ See explanation EU, US, screen, roller blind, window, curtain, louver ergonomics in chapter 2 "Definitions".

#### Running time UP (1 - 320 s)

Options:	• 120
	• 1 - 320 seconds

The configured time here is the maximum running time from the lower end position to the upper end position An overlapping time of 5 seconds is always added except in case of positioning telegrams (objects 9–12). However, if a position telegram with the value "0" is received by the appropriate object, an overlapping time of 5 seconds is added.

#### Running time DOWN (1 - 320 s)

Options: • 120 • 1 - 320 seconds

The configured time here is the maximum running time from the upper end position into the lower end position An overlapping time of 5 seconds is always added except in the case of positioning telegrams (objects 9–12). However, if a position telegram with the value "255" is received by the appropriate object, an overlapping time of 5 seconds is added.

#### Complete tilting time Basis 0.01 s (0 - 100)

Options:	• 30
	• 0 - 100

The configured time here defines the complete tilting time of the slat. This parameter is visible only if as type of end product either Venetian blind with EU ergonomics or Venetian blind with US ergonomics were selected.

#### Step length Basis 0.05 s (2 - 100)

Options:	• 10
	• 3 - 255

The configured time here defines the time for a tilting step. This parameter is visible only if as type of end product either Venetian blind with EU ergonomics or Venetian blind with US ergonomics were selected.

#### **Turning speed (0 - 100 %)**

0ptions: • 0 - 100 • 60

This parameter defines the speed the Venetian blinds slats should turn. Here, by selecting the value "0" the slowest turning speed is defined and with the selection "100", the fastest turning speed.

#### Slack compensation 0.01 s (0 - 100)

Options: • 10 • 0 - 100

The time for slack compensation is active as soon as a higher value than "0" is registered. The time configured here defines the time to add to the complete tilting time in order to adjust mechanical tolerances. This time is always added with the first UP (reverse/open) command of the slat if as type of end product either Venetian blind with EU ergonomics or Venetian blind with US ergonomics were selected.

#### Tension relief when reaching the upper end limit

Options: • Nein • Ja

 $\Delta$  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. This results in the Venetian blinds not being under strain whilst standing in the upper end position. By relieving the pull cord, it is thus not unnecessarily stressed and life expectancy is extended.

#### Automatic slat shake

Options: • Nein • Ja

When the parameter "Yes" is selected, an automatic slat shake is carried out when reaching the bottom end limit. Here, the slats are one time completely opened and closed.

▲ Through this function it is possible also to set up the slats automatically. It can happen that in a DOWN command some of the slats whilst turning get entangled and therefore do not stand in the mechanical default position. Through completely opening and closing the slats, the entangled slats are brought into the mechanical default position.

#### 7.3 Menu index card "Functions Motor 1...4"

1.1.201 animeo KNX 4 DC 2A Motor Co	ntroller WM 24 V DC					×
General		Funct	ions Motor 1			
General Motor 1 Motor 2 Motor 3 Motor 4 Functions Motor 1 Functions Motor 3 Functions Motor 3 Functions Motor 3 Functions Motor 4 Binay input 2, C/ D Binay input 3, C/ H Binay input 3, C/ H General Binay input 1-4 Bus safety Feedback motor positions Safety motor 1-2 Safety motor 1-2 Safety motor 3-4 General Radio binary inputs Radio binary input 1	Intermediate position 1 UP/DOWN position (0-100%) Slat position (0-100%) Intermediate position 2 UP/DOWN position (0-100%) Slat position (0-100%) Block position orders (1 Byte) Block slat orders (1 Byte and 4 Bit) Block UP/DOWN orders (1 Bit) Block Step/Step orders (1 Bit) Block local push button inputs and Somfy RTS orders Repeat last telegram after security	Funct	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		A A A A A A A A A A A A A A A A A A A	
		OK	Cancel Defau	lt Info	Help	

Four individual menu index cards (Functions Motor 1...4) become visible if on the menu index card "General" the basic adjustment of the motors is set to "Individual". Only one menu index card (Functions Motor 1-4) becomes visible, if on the menu index card "General" the basic adjustment of the motors is set to "Combined".

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

0ptions: • 0 • 0 - 100

With this parameter the intermediate position 1 "UP / DOWN" is defined. The adjusted value in % refers to the configured running time of the appropriate Venetian blind of the menu index cards Motor 1...4/Motor 1-4.

If the IP Up/Down position parametr 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 %)

0ptions: • 0 • 0 - 100



With this parameter the slat position of the intermediate position 1 is defined. The adjusted value in % refers to the configured complete tilting time of the appropriate Venetian blind of the menu index cards Motor 1...4/Motor 1-4.

 $\Delta$  Intermediate position 1 can be stored also over the conventional local switch or individually by radio hand transmitters per motor output. The position learned last is valid.

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

0ptions: • 0 • 0 - 100

With this parameter the intermediate position 2 "UP/DOWN" is defined. The adjusted value in % refers to the configured running time of the appropriate blinds of the menu index cards Motor 1...4/Motor 1-4.

If the IP Up/Down position parametr 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 slat position of the intermediate position 3 is defined. The adjusted value in % refers to the configured complete tilting time of the appropriate Venetian blind of the menu index cards Motor 1...4/Motor 1-4.

#### Block UP/DOWN orders (Byte) and intermediate position 1

Options: • No • Yes

Over this parameter the move orders (Byte) can be blocked by object (60–64). If the appropriate object receives a telegram with the value "1" during a blind is in full moving process, this action will first be executed completely. Only then, further move commands (Byte) are blocked. If the appropriate object receives a telegram with the value "0" the move orders (Byte) are again enabled.

#### Block slat order (Byte)

Options: • No • Yes

Over this parameter the slat tilting orders (Byte) can be blocked by object (60-64). If the appropriate object receives a telegram with the value "1" when the slats of a Venetian blind are in full moving process, this action will first be executed completely. Only then, further tilt-ing orders (Byte) are closed. If the appropriate object receives a telegram with the value "0" the slat tilting orders (Byte) are enabled.

#### Block UP/DOWN order (Bit)

Options: • *No* • Yes

Over this parameter the move orders (Bit) can be blocked by object (60–64). If the appropriate object receives a telegram with the value "1" when a blind is in full moving process, this action will first be executed completely. Only then, further move orders (Bit) are blocked. If the appropriate object receives a telegram with the value "0", move orders (Bit) are again enabled.

#### Block step/stop orders (Bit)

Options: • No • Yes

Over this parameter the move orders (Bit) can be blocked by object (60–64). If the appropriate object receives a telegram with the value "1" when a blind is in full moving process, this action will first be executed completely. Only then, further move orders (Bit) are blocked. If the appropriate object receives a telegram with the value "0", move orders (Bit) are again enabled.

#### Block local push button inputs and Somfy RTS orders

Options: • No • Yes

Over this parameter the local push button inputs and the Somfy RTS radio orders can be blocked by object (60–64). If the appropriate object receives a telegram with the value "1" when an end product is in full moving process, this action will first be executed completely. Only then, further commands over the local push button inputs and the Somfy RTS radio will be blocked. If the appropriate object receives a telegram with the value "0" the local push button inputs and the Somfy RTS radio orders are again enabled.

△ 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 7.1 on page 21).

#### Repeat last telegram after security

Options: • No • Yes

If this parameter is set on "Yes" the last move command after security is repeated. This means, the accounting blind will move to the position at which it was previously before on one of the security objects, low or high security, a telegram with the value "1" was received.

#### 7.4 Menu index card "Binary input 1...4"

General		Binary input 1, A/ B	
Motor 1			
Motor 2			
Motor 3	Basic function	Venetian blind, UP/DOWN	•
Motor 4			
Functions Motor 1	Long operation (move) after	0,5 seconds	<b>•</b>
Functions Motor 2			
Functions Motor 3	Contact type input A	Normally open	•
Functions Motor 4			
Binary input 1, A/ B	Contact type input B	Normally open	•
Binary input 2, C/ D			
Binary input 3, E/ H			
Binary input 4, G/H			
General: Binary input 1-4			
Bus safety			
Feedback motor positions			
Safety motor 1-2			
Safety motor 3-4			
General: Radio binary inputs			
Radio binary input 1			
	0	K Cancel Default Infr	e Help

#### **General information**

For each binary input four different basic functions are available:

Options: • Venetian blind UP/DOWN

- Switch/dry contact
- 8-Bit value (rising edge)
- Dimming

The individual functions and parameters depend on the selection of the basic function and are now described. The four different possibilities are described using screenshots of the binary input 1, contact A/B and are identical for the binary inputs 2–4, contacts C/D, E/F and G/H.

⚠ When the basic function "Venetian blind, UP/DOWN" is selected, please be certain about which contact controls the UP order and which the DOWN order. The same attention is necessary when the basic function "Dimming" für "Brighter" resp. "Darker" is selected. The default setting of the basic function for the menu index cards binary input 1...4 is Venetian blind, UP/DOWN.

#### **Basis function**

Options:	<ul> <li><u>Venetian blind UP/DOWN</u></li> <li>Switch/dry contact</li> <li>8-Bit value (rising edge)</li> <li>Dimming</li> </ul>

### Long operating (move) after

Options:	٠	0.5 seconds
	٠	0.3 - 5.0 seconds

This parameter defines the operating time of the appropriate switch, which differentiates between sending a short-term telegram (step/ stop) and a long-term telegram (UP/DOWN motor). If the time is, for example, set to 0.5 seconds, only with a duration of application which is generated longer than 0.5 seconds, a long-term telegram will be executed. With duration of an application which is smaller than 0.5 seconds a short-term telegram is generated.

#### **Contact type input A**

Options:	٠	Normally open
	٠	Normally closed

Specified over this parameter is the contact type at the local input A. Normally open contact: The contact at the local input is not operated open and operated closed. Normally closed contact: The contact at the local input is operated opened and not operated closed.

#### Contact type input B

Options:	٠	Normally open
	٠	Normally closed

Specified over this parameter is the contact type at the local input B. Normally open contact: The contact at the local input is not operated open and operated closed. Normally closed contact: The contact at the local input is operated opened and not operated closed.

General		Binary input 1, A/ B	
Motor 1			
Motor 2			
Motor 3	Basic function	Switch/ Dry contact	•
Motor 4			
Functions Motor 1	Edge evaluation contact A	Rising ON, falling OFF	-
Functions Motor 2			
Functions Motor 3	Edge evaluation contact B	Rising ON, falling OFF	-
Functions Motor 4	Send starting value on		
Binary input 1, A/ B	Bus power return	No	<b>•</b>
Binary input 2, C/D	Contact A and B		
Binary input 3, E/ H	Contact A and B Cyclic sending of status	On	•
Binary input 4, G/H			
General: Binary input 1-4	Cyclic sending in sec. (1-3600)	5	
Bus safety			_
Feedback motor positions			
Safety motor 1-2			
Safety motor 3-4			
General: Radio binary inputs			
Radio binary input 1			
	OK	Cancel Default in	fo Help

#### **Basis function**

- <u>Switch/dry contact</u>
  - 8-Bit value (rising edge)
- Dimming

#### Edge valuation contact A

Options:	<ul> <li>Rising ON, falling OFF</li> <li>Rising OFF, falling ON</li> <li>Rising ON</li> <li>Falling ON</li> <li>Rising OFF</li> <li>Falling OFF</li> <li>Rising toggle</li> <li>Falling toggle</li> </ul>	0n ("1")	Off ("0")	Toggle("1/0")
	<ul><li>Falling toggle</li><li>Rising toggle, falling toggle</li></ul>			

No evaluation

Depending on which edge evaluation was selected the appropriate object value "0" or "1" will be generated.

## • 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 falling 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 contact B

<ul> <li>Rising ON</li> <li>Falling ON</li> <li>Rising OFF</li> <li>Falling OFF</li> <li>Rising toggle</li> <li>Falling toggle</li> <li>Rising toggle, falling toggle</li> <li>No evaluation</li> </ul>		Toggle ("1/0")
---	--	----------------

#### Send starting value on bus power return

Options: • Yes • No

If this parameter is set to "Yes" with bus power return the current status of the input is then sent. If this parameter is set to "No" the current adjusted status of the input is not sent.

#### Contact A and B Cyclic sending of status

Options: • No cyclic sending • On • Off • On and off

Over this parameter it is specified whether the appropriate switching value of the communication object is to be sent cyclically.

#### • No cyclic sending

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

#### • 0n

Only if the object value is "1" it is cyclically sent. If the object value changes due to a change of edge status at the input or due to a receipt of a bus telegram from "0" to "1", the cyclic sending is stopped.

#### • 0ff

Only if the object value is "0" it is cyclically sent. If the object value changes due to a change of edge status at the input or due to a receipt of a Bus telegram from "1" to "0", the cyclic sending is stopped.

#### • On and Off

If the object value is "1" or "0" then the appropriate one is cyclically sent. If the object value changes due to a change of edge status at the input or due to a receipt, a bus telegram of the new value is sent.

#### Cyclic sending in seconds (1 - 3600)

Options:	• 5	
	• 1 - 3600	

Over this parameter the time intervals are fixed in which the appropriate object value is sent cyclically.

⚠ With active cyclic sending it is to be made certain that the time of the cyclic time received is greater approx. 1/4 than the configured cyclic time of the transmitter.

General		Binary input 1, A/ B
Motor 1 Motor 2 Motor 3 Motor 4 Functions Motor 1 Functions Motor 2 Functions Motor 3 Functions Motor 4 <b>Binay input 3</b> , C/ D Binay input 3, C/ D Binay input 4, C/ H General: Binay input 1-4 Bus safety Feedback motor positions Safety motor 1-2 Safety motor 3-4 General: Radio binay input 1 Radio binay input 1	Basic function Contact A. Value on rising edge (0-255) Contact type input A Contact B Value on rising edge (0-255) Contact type input B	8-Bit value (rising edge) 0 Normally open 0 Normally open

#### **Basis function**

Options:	• Venetian blind UP/DOWN
	<ul> <li>Switch/dry contact</li> </ul>
	<ul> <li><u>8-Bit value (rising edge)</u></li> </ul>
	<ul> <li>Dimming</li> </ul>

Contact A Value on rising edge (0 - 255)

0 options: 0 • 0 - 255

Over this parameter the value is adjusted which is sent with receipt of a rising edge at the local input A.

#### **Contact type input A**

Options:	•	Normally open
	٠	Normally closed

Specified over this parameter is the contact type at the local input A. Normally open contact: The contact at the local input is not operated open and operated closed. Normally closed contact: The contact at the local input is operated opened and not operated closed.

#### Contact B Value on rising edge (0 - 255)

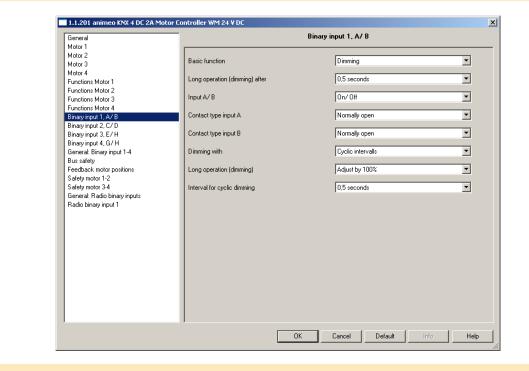
Options:	• 0
	• 0 - 255

Over this parameter the value is adjusted which is sent with receipt of a rising edge at the local input B.

#### Contact type input B

Options:	Normally open	1
	<ul> <li>Normally close</li> </ul>	d

Specified over this parameter is the contact type at the local input B. Normally open contact: The contact at the local input is not operated open and operated closed. Normally closed contact: The contact at the local input is operated opened and not operated closed.



#### **Basis function**

- Options:
- Venetian blind UP/DOWN
  Switch/dry contact
- 8-Bit value (rising edge)
- <u>Dimming</u>

#### Long operation (dimming) after

Options:	• 0.5 second	S
	• 0.3 - 0.5 s	econds

This parameter defines the operating time of the appropriate switch, which differentiates between sending a switching telegram and a dimming telegram. If the time is, for example, set at 0.5 seconds, only with duration of an application which is longer than 0.5 seconds a dimming telegram is generated. With duration of application which is smaller than 0.5 seconds, a switching telegram is generated.

#### Input A/B

This parameter defines the value which is sent with short manipulation of the appropriate input.

#### • 0n/0ff

With a short manipulation of the switch at the input A an "Off" telegram is generated. With a short manipulation of the switch at the input B an "On" telegram is generated. These functions can be inverted by changing the wiring.

#### • Toggle/toggle

With every short manipulation of the switch at the input A or B, toggling occurs. This means the value that is in the appropriate switching object is inverted and then sent.

#### **Contact type input A**

Options:	•	Normally opened
	•	Normally closed

Over this parameter the contact type at the local input A is specified.

Normally open contact: The contact at the local input is not operated open and operated closed. Normally closed contact: The contact at the local input is operated opened and not operated closed.

#### Contact type input B

- Options: Normally opened
  - Normally closed

Over this parameter the contact type at the local input B is specified. Normally open contact: The contact at the local input is not operated open and operated closed. Normally closed contact: The contact at the local input is operated opened and not operated closed.

#### **Dimming with**

Options:	٠	Stop telegram
	٠	Cyclic intervals

#### • Stop Telegram

With a short manipulation of the switch at the local input 1 contact A or B a telegram is generated over the appropriate object (1 Bit). With a long manipulation of the switch at the local input A brightness is dimmed further over the appropriate object (4 Bit). With a long manipulation of the switch at the local input B over the appropriate object (4 Bit) more darkness is dimmed. When releasing the appropriate switch at the local input 1 contact A or B, a stop command is generated.

#### • Cyclic intervals

With a short manipulation of the switch at the local input 1 contact A or B over the object (1 Bit) an "On" or "Off" telegram is generated. With a long manipulation of the switch at the local input 1 contact A over the object (4 Bit) more brightly is being dimmed as long as the switch is depressed. The dimming step width and the time for more brightness dimming, results out of the parameters "Long operation (dimming)" and "Interval for cyclic dimming". When the switch is released the cyclic sending is stopped.

With a long manipulation of the switch at the local input 1 contact B over the appropriate object (4 Bit) more darkness is dimmed as long as the switch is depressed. The dimming step width and the time for more darkness dimming results out of the parameters "Long operation (dimming)" and "Interval for cyclic dimming". When the switch is released the cyclic sending is stopped.

## Long operation (dimming)

Options:	• Adjust by 100 %
	<ul> <li>Adjust by 1/2</li> </ul>
	<ul> <li>Adjust by 1/4</li> </ul>
	<ul> <li>Adjust by 1/8</li> </ul>
	<ul> <li>Adjust by 1/16</li> </ul>
	<ul> <li>Adjust by 1/32</li> </ul>
	<ul> <li>Adjust by 1/64</li> </ul>

This parameter defines the dimming step width of the telegrams after a long manipulation of the switch at the according input.

 $\Delta$  If "Dimming with cyclic sending" is selected in the parameters, it is to made certain, that the dimming step width is configured together with the parameter "Interval for cyclic dimming" depending on the dimming time of the according actuator.

#### Interval for cycling dimming

0ptions: 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.

#### 7.5 Menu index card "General: Binary input 1-4"

1.1.201 animeo KNX 4 DE 2A Motor E	ontroller WM 24 ¥ DC			×
General		General:	Binary input 1-4	
Motor 1				
Motor 2	A 199 1 4 4 11		0 seconds	•
Motor 3	Additional start-up delay		U seconas	
Motor 4			- I	
Functions Motor 1	Limit number of telegrams		Yes	•
Functions Motor 2			[	
Functions Motor 3	Limit		127 telegrams per 17 sec.	<b>•</b>
Functions Motor 4				
Binary input 1, A/B				
Binary input 2, C/ D				
Binary input 3, E/H				
Binary input 4, G / H				
General: Binary input 1-4				
Bus safety				
Feedback motor positions				
Safety motor 1-2				
Safety motor 3-4				
General: Radio binary inputs				
Radio binary input 1				
,	,			
		OK	Cancel Default	Info Help

These parameters concern binary inputs 1 - 4.

#### Start-up delay motor 1...4

Options: • 0 seconds • 0 - 21 seconds

This parameter defines the time after bus power return which runs off before the first telegram can be sent.

## Limit number of telegrams

Options:	• No
	<ul> <li>Yes</li> </ul>

This parameter opens the parameter for adjusting the limit number of telegrams which enables to limit the number of telegrams, which are cyclically sent per time unit.

#### Limit

Options:	<ul> <li>30 telegrams per 17 seconds</li> </ul>
	<ul> <li>60 telegrams per 17 seconds</li> </ul>
	• 100 telegrams per 17 seconds
	• 127 telegrams per 17 seconds

This parameter defines the number of telegrams to be sent within 17 seconds.

#### 7.6 Menu index card "Bus Safety"

Motor 1     MOTOR 1       Motor 2     MOTOR 1       Motor 3     Reaction at Bus power failure       Punctions Motor 1     Reaction at Bus power return       Functions Motor 2     MOTOR 2       Functions Motor 3     Reaction at Bus power failure       Punctions Motor 4     Reaction at Bus power failure       Binay input 1, A/ B     Reaction at Bus power return       Binay input 3, E/ H     Reaction at Bus power return       Binay input 3, E/ H     Reaction at Bus power return       Binay input 4, G/ H     Reaction at Bus power return       Binay input 4, G/ H     Reaction at Bus power return       Binay input 4, G/ H     Reaction at Bus power return       Binay input 4, G/ H     Reaction at Bus power return       Binay input 4, G/ H     Reaction at Bus power return       Binay input 4, G/ H     Reaction at Bus power return       Binay input 4, G/ H     Reaction at Bus power return       Binay input 4, G/ H     Reaction at Bus power return       Binay input 1, 4     Reaction at Bus power return       Upper end limit     Upper end limit       Binay input 4, G/ H     Reaction at Bus power return       Binay input 5, A     H       Safety motor 1-2     Reaction at Bus power return       Safety motor 1-2     Reaction at Bus power return       Safety motor 34
Reaction at power return (24V)         Jupper end limit           Automatic cascading         No

On this menu index card the reaction can be defined for bus power failure and bus power return of each individual motor output.

#### MOTOR 1...4 Reaction at bus power failure

0	ptions:	
v	puons.	

- Upper end position Lower end position
- Ignore
- Intermediate position 1
- Intermediate position 2
- Close window
- Open window
- Ignore
- Close curtain
- Open curtain

This parameter defines the position which will be generated at bus power failure.

#### MOTOR 1...4 Reaction at bus power return

Options: • Upper end position • Lower end position • Ignore • Intermediate position 1 • Intermediate position 2 • Close window • Open window • Ignore • Close curtain • Open curtain	This parameter defines the position which will be generated at bus power return.
--	--

#### MOTOR 1...4 Reaction at power return (24 V DC)

Options:	<ul> <li>Upper end position</li> <li>Lower end position</li> <li>Ignore</li> <li>Close window</li> <li>Open window</li> <li>Close curtain</li> <li>Open curtain</li> </ul>

This parameter defines the position which is generated at main power return (24 V DC).

### Automatic cascading

Options: • No • Yes

If the parameter "Yes" is selected, each motor output will move to the appropriate position with 1 second of delay. This delay time arises, considered in case of "Reaction at bus power return" and "Reaction at main power return (24 V DC)".

▲ Advantage: The current peaks can be lowered thus in larger projects.

#### 7.7 Menu index card "Feedback motor position"

General	_	Feedback motor positions	
ieneral Aotor 1 Aotor 2 Aotor 3 Aotor 4 Tunctions Motor 1 Tunctions Motor 2 Tunctions Motor 4 Sinay input 1, A/B Sinay input 1, A/B Sinay input 4, G/H Binay input 4, G/H Binay input 4, G/H Serental: Binay input 1-4 Bits safety <b>Sectors</b> Safety motor 1-2 Safety motor 1-2 Safety motor 3-4 Serental: Radio binary inputs Radio binary input 1	Feedback of status Upper/ lower end positions Type of feedback Upper/ lower end positions MOTOR 1 Feedback of MOTOR 2 Feedback of MOTOR 3 Feedback of MOTOR 14 Feedback of MOTOR 1.4 Type of feedback Every	Feedback motor positions         Yes         Individual         UP/DDWN position         Slat position         UP/DDWN and slat position         DP/DDWN and slat position         Cyclic         5s	Y Y Y Y

On this menu index card the parameters can be selected in order to announce the status positions of the individual blinds on the bus. The status positions generated thus are based on the configured running and tilting times of the menu index cards "Motor 1...4" or" Motor 1–4".

#### Feedback of status upper/lower end position

Options: No Yes

This parameter opens the parameter "Type of feedback".

#### Type of feedback for end positions

Options: Combined when all are UP/DOWN Individual

#### • Combined when all are UP/DOWN

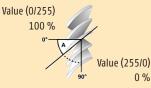
If this parameter is selected, the appropriate end position, UP or DOWN, is sent only to the bus when all four blinds have reached the upper end limit (object 54) respectively have reached the lower end position (object 59).

#### • Individual

If this parameter is selected, the appropriate end position, UP or DOWN, is sent to the bus for every single blind. For this objects (50–53 und 55–58) are available.

#### MOTOR 1...4 Feedback for

Options:	UP / DOWN positions
	Slat position
	UP/DOWN and slat position
	None



#### • UP/DOWN position

Over this parameter the position UP/DOWN for the appropriate motor is sent to the bus, depending on the parameter "Type of feedback". "O" = UP / "255" = DOWN.

## • Slat position

Over this parameter the position of the slat for the appropriate motor is sent to the bus, depending on the parameter "Type of feedback". "0/255" = slat opened, "255/0" = slat closed.

The value for the slat position which is sent depends on the parameter selection on the menu index card "General" – Slat position closed/ reversed ONLY FOR Venetian BLINDS.

## • UP/DOWN and slat position

Over this parameter the position UP/DOWN and the position of the slat for the appropriate motor is sent to the bus, depending on the parameter "Type of feedback ". "0" = UP/ "255" = DOWN, "0/255" = slat opened. The value for the slat position which is sent depends on the parameter selection on the menu index card "General" – Slat position closed/reversed ONLY FOR Venetian BLINDS.

#### • None

No position are sent to the bus.

#### Type of feedback

Options:	On demand	
	Status change	
	Cyclic	

#### • On demand

The currenct position of the blinds must be requested over object 46.

#### • Status change

The current position of the appropriate blind is sent to the bus after every change of position. The position is only sent to the bus if the target position is reached.

#### • Cyclic

This parameter opens an additional parameter ("Every") in the time for cycling sending is configured.

#### Every

Options:	<ul> <li>5 seconds</li> <li>10 seconds</li> <li>20 seconds</li> <li>30 seconds</li> <li>60 seconds</li> <li>15 minutes</li> <li>30 minutes</li> <li>60 minutes</li> <li>120 minutes</li> </ul>
----------	--

▲ Over this parameter it is defined in which time intervals the current position of the appropriate blind is sent to the bus. The current position of the blinds is only sent to the bus during the drive.

#### 7.8 Menu index card "Safety motor 1-2/motor 3-4/motor 1-4"

		Safety motor 1-2	
General Motor 1 Motor 2 Motor 3 Motor 4 Functions Motor 1 Functions Motor 2 Functions Motor 3 Functions Motor 4 Binaay input 1, A/ B Binaay input 3, E/ H Binaay input 3, E/ H Binaay input 4, G/ H General: Binaay input 1-4 Bus safety Feedback motor positions Safety motor 1-2 Safety motor 1-2 Saf	MOTOR 1, security position Low priority MOTOR 1, security position High priority Cyclic monitoring time in sec. (0-255) MOTOR 2, security position Low priority MOTOR 2, security position High priority Cyclic monitoring time in sec. (0-255)	Safety motor 1-2  Ignore security Upper end limit  Ignore security Ignore security  Ignore security  Ignore security  Ignore security  Ignore security Ignore	Y X X Y Y X

Two individual cards (Safety motor 1-2 / Safety motor 3-4) are visible when on the card "General" for the motor output configuration "Individual" is parametered. One card (Safety motor 1-4) is visible when on the card "General" for the motor output configuration "Combined" is parametered. The parameter for motor 1 is described as follows. The parameters for motors 2-4 are the same.

## MOTOR 1, Security position Low priority

Options:	<ul> <li>Upper end limit</li> <li>Lower end limit</li> <li>Intermediate position 1</li> <li>Intermediate position 2</li> <li>Ignore security</li> <li>Stop</li> <li>Close window</li> <li>Open window</li> <li>Close curtain</li> <li>Open curtain</li> </ul>
Over this na	rameter the security position "low security

Over this parameter the security position "low security" is specified for the appropriate blind. If on one of the communication objects (objects 31–35) a telegram with the value "1" is received, then the appropriate blind moves to the position which is configured in the ETS parameters. If on one of these communication objects a telegram with the value "0" is received no action will be executed. If in the ETS parameters "Repeat the last telegram after security (Yes)" is selected, then this action for the appropriate blind will be executed. If one of these communication objects is active by a telegram with the value "1" and on one of the communication objects 36–40 (security position, high priority) a telegram with the value "1" is received, the appropriate blind moves to the position configured in the ETS parameters (security position, high priority).

<b>MOTOR 1, Security positio</b>	n
High priority	

Options:	<ul> <li>Upper end limit</li> <li>Lower end limit</li> <li>Ignore security</li> <li>Close window</li> <li>Open window</li> <li>Close curtain</li> <li>Open curtain</li> </ul>

Over this parameter the security position "high security" is specified for the appropriate blind. If on one of the communication objects (objects 36-40) a telegram with the value "1" is received, then the appropriate blind moves to the position configured in the ETS parameters. If on one of these communication objects a telegram with the value "0" is received no action will be executed. Only if in the ETS parameters "Repeat the last telegram after security (Yes)" is selected, then this action for the appropriate blind will be executed. If in this case an object for low priority is activ (,,1"), the appropriate parametered position will be moved to.

Cyclic monitoring time in seconds (0 - 255)

Options:	• 0
	• 0 - 255

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

▲ With active cyclic monitoring it is to be made certain that the time of the cyclic transmitter is smaller, approx. 1/4 than the configured cyclic monitoring time for the security objects, low and high priority. If the default value remains adjusted "0" the security objects react statically to the values "1" and "0".

#### 7.9 Menu index card "General: Radio binary input"

General		General: Radio binary inputs	
Motor 1			
Motor 2	Radio binary input 1	Yes	•
Motor 3	hadio binary input i	Tes	
Motor 4	Radio binary input 2	Yes	•
Functions Motor 1	Hadio binary input 2	Tes	
Functions Motor 2			
Functions Motor 3	Radio binary input 3	Yes	<b>-</b>
Functions Motor 4			
Binary input 1, A/ B	Radio binary input 4	Yes	•
Binary input 2, C/ D			
Binary input 3, E/H	Radio binary input 5	Yes	•
Binary input 4, G/H			
General: Binary input 1-4			
Bus safety			
Feedback motor positions			
Safety motor 1-2			
Safety motor 3-4			
General: Radio binary inputs			
Radio binary input 1			
Radio binary input 2			
Radio binary input 3			
Radio binary input 4			
Radio binary input 5			
		OK Cancel Default	Info Held

#### General information for radio input

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

Options:	Venetian blind UP/DOWN
	Switch/Dry contact
	8-Bit value (rising edge)
	Dimming
	Venetian blind 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, default 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 the parameter "Yes" additional menu index cards "Radio binary input 1...5" become visible. At the same time the necessary objects for this appear.

## 7.10 Menu index card "Radio binary input 1...5"

General	Ba	dio binary input 1	
vlotor 1 vlotor 2			
Motor 2 Motor 3	Basic function	Venetian blind Up/Down	-
Motor 4			
Functions Motor 1	Long operation (move) after	0,5 seconds	-
Functions Motor 2			
Functions Motor 3	Functionality of the 'my' push button	1-Bit value	-
Functions Motor 4			
Binary input 1, A/B	Functionality of the 'my' push button (rising edge)	ON	-
Binary input 2, C/ D		· · · · · · · · · · · · · · · · · · ·	
Binary input 3, E/ H			
Binary input 4, G/H			
General: Binary input 1-4			
Bus safety			
Feedback motor positions			
Safety motor 1-2			
Safety motor 3-4			
General: Radio binary inputs			
Radio binary input 1			
Radio binary input 2			
Radio binary input 3			
Radio binary input 4			
Radio binary input 5			
	1		

#### **Basic function**

Options: <u>Venetian blind UP/DOWN</u> Switch/Dry contact 8-Bit value (rising edge) Dimming Venetian blind turn slowly

## Long operation move after

Options:	٠	0.5 seconds
	٠	0.35.0 seconds

This parameter defines the activity time of the corresponding transmitter push button which distinguishes between the sending of a shortterm 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

Selection options:	•	1–Bit value
		8-Bit value
	٠	No function (no evaluation)

-

## Functionality of the "my" push button 1-Bit value

- Options:
  - Off
    - Toggle

• 0n

• No function (no evaluation)

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

#### • 0n

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

#### • 0ff

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

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.

General	Radio	binary input 1	
Motor 1 Motor 2			
Motor 2 Motor 3	Basic function	Switch/Dry contact	•
Motor 3 Motor 4		, ,	
Motor 4 Functions Motor 1	Functionality of the 'UP' push button	ON	-
Functions Motor 2		1	
Functions Motor 2	Functionality of the 'DOW/N' push button	OFF	<b>•</b>
Functions Motor 4		1	
Binary input 1, A/ B	Functionality of the 'my' push button	1-Bit value	•
Binary input 2, C/ D	,,,,,,,	1	
Binary input 3, E/ H	Functionality of the 'my' push button (rising edge)	ON	-
Binary input 4, G/H	· · · · · · · · · · · · · · · · · · ·	1	
General: Binary input 1-4			
Bus safety			
Feedback motor positions			
Safety motor 1-2			
Safety motor 3-4			
General: Radio binary inputs			
Radio binary input 1			
Radio binary input 2			
Radio binary input 3			
Radio binary input 4			
Radio binary input 5			

Options:	<ul> <li>Venetian blind UP/DOWN</li> <li>Switch/Dry contact</li> <li>8-Bit value</li> <li>Dimming</li> <li>Venetian blind slow tilting</li> </ul>			
Function of	the "UP" button			
Options:	<ul> <li>On</li> <li>Off</li> <li>Toggle</li> <li>No function</li> </ul>	0n ("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.

#### • 0ff

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" button

Options:	<ul> <li>On</li> <li><i>Off</i></li> <li>Toggle</li> <li>No function (no evaluation)</li> </ul>	0n ("1")	Off ("0")	At ("1/0")

## Functionality of the "my" 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".

## animeo KNX 4 DC 2 A Motor Controller $\cdot$ REF. 5059105E – 43/50

General Motor 1	Radi	io binary input 1
Motor I Matar 2		
Motor 3	Basic function	8-Bit value (rising edge)
Motor 4		
Functions Motor 1	Value of the 'UP' push button	0
Functions Motor 2		
Functions Motor 2	Value of the 'DOWN' push button	0
Functions Motor 4		
Binary input 1, A/ B	Functionality of the 'my' push button	1-Bit value
Binary input 2, C/ D		
Binary input 3, E/ H	Functionality of the 'my' push button (rising edge)	ON 💌
Binary input 4, G/H		, _
General: Binary input 1-4		
Bus safety		
Feedback motor positions		
Safety motor 1-2		
Safety motor 3-4		
General: Radio binary inputs		
Radio binary input 1		
Radio binary input 2		
Radio binary input 3		
Radio binary input 4		
Radio binary input 5		

Options:	<ul> <li>Venetian blind UP/DOWN</li> <li>Switch/Dry contact</li> <li><u>8-Bit value</u></li> <li>Dimming</li> <li>Venetian blind slow tilting</li> </ul>
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## Function of the "UP" button

Options:	• <i>0</i> • 0 - 255
----------	-------------------------

#### 0 - 255

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

## Function of the "DOWN" button

Options: • 0 • 0 - 255

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

## Function of the "my" button

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

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

General		Radio b	pinary input 1	
Motor 1				
Motor 2 Motor 3	Basic function		Dimming	•
Motor 3 Motor 4			1	
Motor 4 Functions Motor 1	Long operation (move) after		0,5 seconds	-
Functions Motor 1 Functions Motor 2			1	
Functions Motor 2	Dimming Brighter/Darker for		Adjust by 1/8	<b>•</b>
Functions Motor 3			li referer e y	
Binary input 1, A/ B	Functionality of the 'my' push button		No function	•
Binary input 2, C/ D	I anotorially of the my paor ballor		International I	
Binary input 3, E/ H				
Binary input 4, G/ H				
General: Binary input 1-4				
Bus safety				
Feedback motor positions				
Safety motor 1-2				
Safety motor 3-4				
General: Radio binary inputs				
Radio binary input 1				
Radio binary input 2				
Radio binary input 3				
Radio binary input 4				
Radio binary input 5				

Options:	<ul> <li>Venetian blind UP/DOWN</li> <li>Switch/Dry contact</li> <li>8-Bit value</li> <li><u>Dimming</u></li> <li>Venetian blind slow tilting</li> </ul>	

## Long operation after

Options:	٠	0.5 seconds
	٠	0.35.0 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:	<ul> <li>1-Bit value</li> </ul>
	<ul> <li>8-Bit value</li> </ul>
	<ul> <li>No function</li> </ul>

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

Aotor 1			
Aotor 2	Basic function	Venetian blind low tilting	-
Notor 3		, for other bind for thing	
Motor 4 Functions Motor 1	Long operation (move) after	0.5 seconds	-
unctions Motor 1 Junctions Motor 2	Long operation (more) and	10,0 00001100	
	Tilt slats (open/close) slowly by	Adjust by 1/8	-
unctions Motor 3 unctions Motor 4	The state (open store) storing by	Inductor in o	
	Functionality of the 'my' push button	No function	•
linary input 1, A/ B	r and onality of the my pash bactor	Norancion	
linary input 2, C/ D			
inary input 3, E/ H			
linary input 4, G/H			
ieneral: Binary input 1-4			
us safety			
eedback motor positions			
afety motor 1-2			
afety motor 3-4 ieneral: Radio binary inputs			
aeneral: madio binary inputs Radio binary input 1			
Radio binary input 2			
Radio binary input 3 Radio binary input 4			
adio binary input 5			

<u>Venetian blind slow tilting</u>	Options:	<ul> <li>Venetian blind UP/DOWN</li> <li>Switch/Dry contact</li> <li>8-Bit value</li> <li>Dimming</li> <li>Venetian blind slow tilting</li> </ul>
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## Long operation (move) after

Options:	0.5 seconds
	0.35.0 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.

## Tilt slats (open/close) slowly by

Options:	٠	Adjust 1/8
	٠	Adjust 100 % 1/64

This parameter defines the turn 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.

# 8.1 LEDs on the animeo KNX Motor Controller

The LEDs on the animeo KNX 4 DC 2 A Motor Controller can be used for the following functions:

# 8.2 Information during the operation

Receiving of a radio telegram .....

"Security low/high" or object "Block functions" active ...... "The device is operational", display of receipt of KNX telegrams ......



# 8.3 Status of configuration

▲ The inquiry of the status of the configuration is only possible on delivery <u>before</u> the device is programmed with the ETS. As soon as the device is programmed with the ETS, the status of the configurations can no longer be checked via the Reset/Prog button. If the device is unloaded by the ETS, the status of the configuration can again be queried over the Reset/Prog button. The inquiry of the status of the radio functionality (green upper LED) is always possible.

LED		0n (2 s)	Blinking
•)))	= Green	Radio remote configured	No radio configuration
SCR	= Yellow	Screen, roller blind with configured running and tilt- ing times	Screen, roller blind without configured running and tilting times
EU	= Orange	Venetian blind, EU ergonomics with configured running and tilting times	Venetian blind, EU ergonomics without configured running and tilting times
US	= Red	Venetian blind, US ergonomics with configured running and tilting times	Venetian blind, US ergonomics without configured running and tilting times

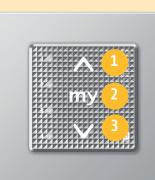
## 8.4 First diagnosis

## 8.4.1 Warning LED ( ) on the Motor Controller

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

		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 2A Motor Controller	Ref. 1860128
Supply voltage	24 V DC (min. 21,5 V DC - max. 28 V DC)
Stand-by current (IEC 62301)	50 mA@ 24 V DC
Stand-by power (IEC 62301)	300 mW@24 V DC
KNX power supply	KNX voltage 2130 V DC, SELV
KNX nominal power input	according to KNX guidelines
Max. power input (motor)	4 x 2,3 A@ 24 V DC
Voltage of combined inputs	SELV, 16 VDC =
Voltage of local push button inputs	SELV, 16 VDC =
Input/output	short circuit protected
Connection	Screw connectors
Connection KNX	KNX bus terminals (black/red)
Running time motor (switch time relais)	max. 5 minutes
Operating temperature	– 5° C to 45° C
Relative air humidity	max.85 %
Housing material	PC-ABS
Housing measurements (H x W x D)	180 x 255 x 63 mm
Weight	700 g
Protection degree	IP 20
Protection class	Ш
Conformity	www.somfy.com/ce

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

Software class:	A
Action:	Type 1
Pollution degree:	2
Temperature of ball hardness test:	75°C
Type of fixing:	Туре Х
Method of attachment for non-detachable cords:	Screwless spring terminals
EMV interference emission check:	$U_{DC} = 24 \text{ V DC}$ $I_{DC} = 9 \text{ A} (EN 55022 \text{ transmission class B})$

Somfy Activités SA 50 Avenue du Nouveau Monde 74300 Cluses

www.somfy.com/projects

