animeo KNX

RS485 Motor Controller WM

Operating Manual



Ref. 1860286

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The KNX RS485 is a wall-mounted Motor Controller which enables the controlling of up to 18 motors. The motors can be controlled either individually or by groups.

RS485 motors can be connected to the RS485 Bridging Adapter, ref. 9019004. Different motor types can be used.

RS485 motors are compatible with

Sonesse50 RS485 LT50 RS485 Sonesse30 RS485 Sonesse50 Ultra DC RS485

Product features:

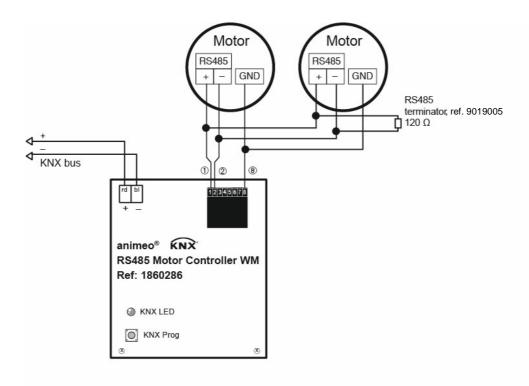
- Flexible installation: suspended ceiling/raised floor, under window or wall-mounted wiring channels.
- Quick installation and connection of the Motor Controller by plug and play, cable tension relief point to tighten cables to the housing of the product and daisy chaining of several RS485 motors.
- With the SDN configuration software the motor settings have to be done before configuring via ETS.
- Perfect alignment of the blinds thanks to the increment encoder technology of the RS485 motors.
- The exact position of the blind during movement and when reaching the upper and lower end limits can be monitored.
- Using a one Byte telegram over the KNX, the blind can be moved to numerous intermediate positions.



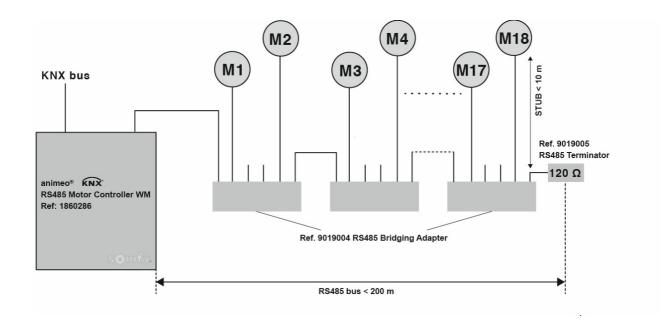
1 First operation

- 1. Blinds must be mounted and the upper and lower end limit **must be** adjusted (s. wiring diagram). The settings of the motor limits can be done via the use of the SDN configuration software.
- 2. Link all motors via the RS485 bus and connect them to the Motor Controller.
- 3. Turn on power supply of the motors.
- 4. Connect power supply to the Motor Controllers (KNX bus).
- 5. After a waiting time of ca. 30 seconds all motors can be operated by means of the push buttons on the Motor Controller.
- 6. Check end limits and running direction. Can be adjusted later via ETS, if necessary.
- 7. Create ETS project and download it.
- 8. After a waiting time of approx. 1 minute after downloading the Motor Controller is ready for operation.

2 Wiring diagram







Connection to		Cable	Twisted pair	Max. length
RS485 bus	Modular Jack 8P4C (RJ45)	Min.: 4 x 2 x 0.5 mm/24 AWG	Required twisted pair shielded, impedance 100 Ω (-10 Ω /+30 Ω), recommended CAT5-FTP, following Somfy RS485 guidelines	200 m
KNX Bus		2 x 0.8 mm/20 AWG	Required, following KNX topology guidelines	-



3 Communication objects

3.1 Object overview

A maximum of 306 communication objects are available, which however cannot be used at one time. △ Maximum 480 group addresses can be linked.

3.1.1 List of Objects

No.	Object name	Model	DPT_ID	Description
1	Motor 1 Position Request	1 Bit	1.017	If a telegram with the value "1" or "0" is received on this communication object, the current status position is sent on the bus (object 2).
2	Motor 1 Position Feedback	1 Byte	5.001	On this communication object the current position (UP/DOWN direction) of the blind is sent to the bus based on the programmed running time. The type of feedback (on demand, status change, cyclic) is defined in the ETS parameters. "0" = UP / "100" = DOWN
3	Not used			
4	Motor 1 Feedback Upper End	1 Bit	1.001	Over this communication object a telegram with the value "1" is sent if the upper end position is reached. When leaving the upper end position of the blind a telegram with the value "0" is sent. The upper and the lower end position result from the parameterized running times.
5	Motor 1 Feedback Lower End	1 Bit	1.001	Over this communication object a telegram with the value "1" is sent after the lower end position is reached. When leaving the lower end position of the blind a telegram with the value "0" is sent. The upper and the lower end position result from the parameterized running times.
6	Motor 1 Error Feedback	1 Bit	1.001	Over this communication object a telegram is sent if a motor error occurs. An error is when a move command was sent to the motor, but the motor does not move. The sent value of this communication object depends on what has been selected in the ETS parameters. • 1/0 (1 = error, 0 = no error) or • 0/1 (0 = error, 1 = no error)
7	Motor 1 Identification	4 Bytes	12.*	Write: 0 → Motor is winking 1-255 → Move to position Read: Read out the Motor ID of the connected RS485 motor
8	Motor 1 Cycles	4 Bytes	12.001	Read out the number of movement cycles of the motor.



No.	Object name	Model	DPT_ID	Description
9	Motor 2 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
10	Motor 2 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
11	Not used			
12	Motor 2 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
13	Motor 2 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
14	Motor 2 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
15	Motor 2 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
16	Motor 2 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
17	Motor 3 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
18	Motor 3 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
19	Not used			
20	Motor 3 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
21	Motor 3 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
22	Motor 3 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
23	Motor 3 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
24	Motor 3 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
25	Motor 4 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
26	Motor 4 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
27	Not used			
28	Motor 4 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
29	Motor 4 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
30	Motor 4 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
31	Motor 4 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
32	Motor 4 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
33	Motor 5 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
34	Motor 5 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
35	Not used			
36	Motor 5 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
37	Motor 5 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
38	Motor 5 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
39	Motor 5 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
40	Motor 5 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
41	Motor 6 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
42	Motor 6 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
43	Not used			
44	Motor 6 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1



No.	Object name	Model	DPT_ID	Description
45	Motor 6 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
46	Motor 6 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
47	Motor 6 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
48	Motor 6 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
49	Motor 7 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
50	Motor 7 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
51	Not used			
52	Motor 7 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
53	Motor 7 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
54	Motor 7 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
55	Motor 7 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
56	Motor 7 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
57	Motor 8 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
58	Motor 8 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
59	Not used			
60	Motor 8 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
61	Motor 8 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
62	Motor 8 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
63	Motor 8 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
64	Motor 8 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
65	Motor 9 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
66	Motor 9 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
67	Not used			
68	Motor 9 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
69	Motor 9 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
70	Motor 9 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
71	Motor 9 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
72	Motor 9 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
73	Motor 10 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
74	Motor 10 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
75	Not used			
76	Motor 10 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
77	Motor 10 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
78	Motor 10 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
79	Motor 10 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
80	Motor 10 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
81	Motor 11 Position Request	1 Bit	1.017	See object description no. 1 for motor 1



No.	Object name	Model	DPT_ID	Description
82	Motor 11 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
83	Not used			
84	Motor 11 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
85	Motor 11 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
86	Motor 11 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
87	Motor 11 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
88	Motor 11 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
89	Motor 12 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
90	Motor 12 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
91	Not used			
92	Motor 12 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
93	Motor 12 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
94	Motor 12 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
95	Motor 12 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
96	Motor 12 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
97	Motor 13 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
98	Motor 13 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
99	Not used			
100	Motor 13 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
101	Motor 13 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
102	Motor 13 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
103	Motor 13 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
104	Motor 13 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
105	Motor 14 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
106	Motor 14 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
107	Not used			
108	Motor 14 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
109	Motor 14 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
110	Motor 14 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
111	Motor 14 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
112	Motor 14 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
113	Motor 15 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
114	Motor 15 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
115	Not used			
116	Motor 15 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
117	Motor 15 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
118	Motor 15 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1



No.	Object name	Model	DPT_ID	Description
119	Motor 15 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
120	Motor 15 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
121	Motor 16 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
122	Motor 16 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
123	Not used			
124	Motor 16 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
125	Motor 16 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
126	Motor 16 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
127	Motor 16 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
128	Motor 16 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
129	Motor 17 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
130	Motor 17 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
131	Not used			
132	Motor 17 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
133	Motor 17 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
134	Motor 17 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
135	Motor 17 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
136	Motor 17 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1
137	Motor 18 Position Request	1 Bit	1.017	See object description no. 1 for motor 1
138	Motor 18 Position Feedback	1 Byte	5.001	See object description no. 2 for motor 1
139	Not used			
140	Motor 18 Feedback Upper End	1 Bit	1.001	See object description no. 4 for motor 1
141	Motor 18 Feedback Lower End	1 Bit	1.001	See object description no. 5 for motor 1
142	Motor 18 Error Feedback	1 Bit	1.001	See object description no. 6 for motor 1
143	Motor 18 Identification	4 Bytes	12.*	See object description no. 7 for motor 1
144	Motor 18 Cycles	4 Bytes	12.001	See object description no. 8 for motor 1



No.	Object name	Model	DPT_ID	Description
153	Command Group 1 Up/Down	1 Bit	1.008	If a telegram with the value "0" is received on this communication object, the appropriate blind goes up. If a telegram with the value "1" is received, the appropriate blind goes down.
154	Command Group 1 Dedicated Stop	1 Bit	1.017	If the end product is in a full moving process, it stops with the receipt of a telegram on the object, regardless of whether a telegram with the value "0" or "1" is received. If the end product is in passive state, then with the receipt of a telegram on this communication object no action is executed.
155	Command Group 1 Position	1 Byte	5.001	If this communication object receives a telegram, the appropriate blind will go into the position which is defined by the received value. "0" = UP "100" = DOWN
156	Not used			
157	Command Group 1 Move to IP1	1 Bit	1.008	If a telegram with the value "1" is received on this communication object, the blind goes to the intermediate position 1 which was configured by local switch or parameterized in the ETS parameters. The last position which has been configured is active. Receiving a telegram with the value "0" on this communication object the appropriate blind goes to the upper end position.
158	Command Group 1 Move to IP2	1 Bit	1.008	If a telegram with the value "1" is received on one of these communication objects, the corresponding blind moves to the intermediate position 2 parameterized in the ETS parameters. Receiving a telegram with the value "0" on one of these communication objects, the corresponding blind moves to the upper end position.
159	Command Group 1 Security low prio	1 Bit	1.001	If a telegram with the value "1" is received on this communication object, the blind goes to the position which was parameterized in the ETS parameters. When the communication object receives a telegram with value "0" no action will be executed. Only with the selection "Restore previous position after security (Yes)" in the ETS parameters this action will be executed on the blind. If this communication object is active through a telegram with the value "1" and if then on the communication object 160 (security position, high priority) a telegram with value "1" is received, the blind will move to the position configured in the ETS parameters (security position, high priority).
160	Command Group 1 Security high prio	1 Bit	1.001	If a telegram with the value "1" is received on this communication object, the blind goes to the position which was parameterized in the ETS parameters. When the communication object receives a telegram with value "0" no action will be executed. Only with the selection "Restore previous position after security (Yes)" in the ETS parameters this will be executed in the blind. If an object for security position, low priority is active ("1"), the blinds will go to the parameterized position for the low priority.



No.	Object name	Model	DPT_ID	Description
161	Command Group 1 Block functions	1 Bit	1.001	If a telegram with the value "1" is received on this communication object, the function which is selected in ETS parameters will be blocked for the blind. If a telegram with the value "0" is received on this communication object, the function for the blind will be enabled again.
162	Command Group 1 Prio automatic/manual	1 Bit	1.001	Over this communication object priority between automatic function and manual function can be switched. If a telegram with the value "1" is received on this communication object priority automatic function is active for the blind. If a telegram with the value "0" is received on this communication object priority manual functions are active for the blind.
163	Command Group 1 Reset priority	1 Bit	1.017	If a telegram with the value "1" or "0" is received on this communication object, the appropriate priority for the blind is reset. Priority automatic function or priority manual function is then again actively switched. The active priority depends on which communication object is active and/or which priority has been selected in the ETS parameters.
164	Command Group 2 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
165	Command Group 2 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
166	Command Group 2 Position	1 Byte	5.001	See object description no. 155 for command group 1
167	Not used			
168	Command Group 2 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
169	Command Group 2 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
170	Command Group 2 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
171	Command Group 2 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
172	Command Group 2 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
173	Command Group 2 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
174	Command Group 2 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
175	Command Group 3 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
176	Command Group 3 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
177	Command Group 3 Position	1 Byte	5.001	See object description no. 155 for command group 1
178	Not used			
179	Command Group 3 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1



No.	Object name	Model	DPT_ID	Description
180	Command Group 3 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
181	Command Group 3 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
182	Command Group 3 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
183	Command Group 3 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
184	Command Group 3 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
185	Command Group 3 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
186	Command Group 4 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
187	Command Group 4 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
188	Command Group 4 Position	1 Byte	5.001	See object description no. 155 for command group 1
189	Not used			
190	Command Group 4 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
191	Command Group 4 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
192	Command Group 4 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
193	Command Group 4 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
194	Command Group 4 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
195	Command Group 4 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
196	Command Group 4 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
197	Command Group 5 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
198	Command Group 5 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
199	Command Group 5 Position	1 Byte	5.001	See object description no. 155 for command group 1
200	Not used			
201	Command Group 5 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
202	Command Group 5 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
203	Command Group 5 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1



No.	Object name	Model	DPT_ID	Description
204	Command Group 5 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
205	Command Group 5 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
206	Command Group 5 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
207	Command Group 5 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
208	Command Group 6 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
209	Command Group 6 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
210	Command Group 6 Position	1 Byte	5.001	See object description no. 155 for command group 1
211	Not used			
212	Command Group 6 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
213	Command Group 6 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
214	Command Group 6 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
215	Command Group 6 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
216	Command Group 6 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
217	Command Group 6 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
218	Command Group 6 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
219	Command Group 7 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
220	Command Group 7 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
221	Command Group 7 Position	1 Byte	5.001	See object description no. 155 for command group 1
222	Not used			
223	Command Group 7 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
224	Command Group 7 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
225	Command Group 7 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
226	Command Group 7 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
227	Command Group 7 Block functions	1 Bit	1.001	See object description no. 161 for command group 1



No.	Object name	Model	DPT_ID	Description
228	Command Group 7 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
229	Command Group 7 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
230	Command Group 8 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
231	Command Group 8 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
232	Command Group 8 Position	1 Byte	5.001	See object description no. 155 for command group 1
233	Not used			
234	Command Group 8 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
235	Command Group 8 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
236	Command Group 8 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
237	Command Group 8 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
238	Command Group 8 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
239	Command Group 8 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
240	Command Group 8 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
241	Command Group 9 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
242	Command Group 9 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
243	Command Group 9 Position	1 Byte	5.001	See object description no. 155 for command group 1
244	Not used			
245	Command Group 9 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
246	Command Group 9 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
247	Command Group 9 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
248	Command Group 9 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
249	Command Group 9 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
250	Command Group 9 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
251	Command Group 9 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
252	Command Group 10 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1



No.	Object name	Model	DPT_ID	Description
253	Command Group 10 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
254	Command Group 10 Position	1 Byte	5.001	See object description no. 155 for command group 1
255	Not used			
256	Command Group 10 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
257	Command Group 10 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
258	Command Group 10 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
259	Command Group 10 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
260	Command Group 10 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
261	Command Group 10 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
262	Command Group 10 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
263	Command Group 11 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
264	Command Group 11 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
265	Command Group 11 Position	1 Byte	5.001	See object description no. 155 for command group 1
266	Not used			
267	Command Group 11 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
268	Command Group 11 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
269	Command Group 11 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
270	Command Group 11 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
271	Command Group 11 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
272	Command Group 11 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
273	Command Group 11 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
274	Command Group 12 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
275	Command Group 12 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
276	Command Group 12 Position	1 Byte	5.001	See object description no. 155 for command group 1
277	Not used			



No.	Object name	Model	DPT_ID	Description
278	Command Group 12 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
279	Command Group 12 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
280	Command Group 12 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
281	Command Group 12 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
282	Command Group 12 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
283	Command Group 12 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
284	Command Group 12 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
285	Command Group 13 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
286	Command Group 13 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
287	Command Group 13 Position	1 Byte	5.001	See object description no. 155 for command group 1
288	Not used			
289	Command Group 13 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
290	Command Group 13 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
291	Command Group 13 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
292	Command Group 13 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
293	Command Group 13 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
294	Command Group 13 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
295	Command Group 13 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
296	Command Group 14 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
297	Command Group 14 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
298	Command Group 14 Position	1 Byte	5.001	See object description no. 155 for command group 1
299	Not used			
300	Command Group 14 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
301	Command Group 14 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
302	Command Group 14 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1



No.	Object name	Model	DPT_ID	Description
303	Command Group 14 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
304	Command Group 14 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
305	Command Group 14 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
306	Command Group 14 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
307	Command Group 15 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
308	Command Group 15 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
309	Command Group 15 Position	1 Byte	5.001	See object description no. 155 for command group 1
310	Not used			
311	Command Group 15 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
312	Command Group 15 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
313	Command Group 15 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
314	Command Group 15 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
315	Command Group 15 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
316	Command Group 15 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
317	Command Group 15 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
318	Command Group 16 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
319	Command Group 16 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
320	Command Group 16 Position	1 Byte	5.001	See object description no. 155 for command group 1
321	Not used			
322	Command Group 16 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
323	Command Group 16 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
324	Command Group 16 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
325	Command Group 16 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
326	Command Group 16 Block functions	1 Bit	1.001	See object description no. 161 for command group 1



No.	Object name	Model	DPT_ID	Description
327	Command Group 16 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
328	Command Group 16 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
329	Command Group 17 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
330	Command Group 17 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
331	Command Group 17 Position	1 Byte	5.001	See object description no. 155 for command group 1
332	Not used			
333	Command Group 17 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
334	Command Group 17 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
335	Command Group 17 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
336	Command Group 17 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
337	Command Group 17 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
338	Command Group 17 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
339	Command Group 17 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1
340	Command Group 18 Up/Down	1 Bit	1.008	See object description no. 153 for command group 1
341	Command Group 18 Dedicated Stop	1 Bit	1.017	See object description no. 154 for command group 1
342	Command Group 18 Position	1 Byte	5.001	See object description no. 155 for command group 1
343	Not used			
344	Command Group 18 Move to IP1	1 Bit	1.008	See object description no. 157 for command group 1
345	Command Group 18 Move to IP2	1 Bit	1.008	See object description no. 158 for command group 1
346	Command Group 18 Security low prio	1 Bit	1.001	See object description no. 159 for command group 1
347	Command Group 18 Security high prio	1 Bit	1.001	See object description no. 160 for command group 1
348	Command Group 18 Block functions	1 Bit	1.001	See object description no. 161 for command group 1
349	Command Group 18 Prio automatic/manual	1 Bit	1.001	See object description no. 162 for command group 1
350	Command Group 18 Reset priority	1 Bit	1.017	See object description no. 163 for command group 1

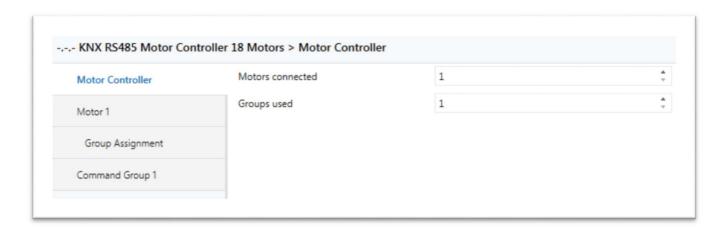


4 Parameter

The options to be selected of the single parameters are described in each case. The default settings are printed in italic. In the following illustrations of the different parameter cards the maximum number of parameter is shown. Besides this and depending on the parameter settings, objects which are not required are faded out

4.1 Motor Controller settings

4.1.1 Menu index card "Motor Controller"



With this menu index card it can be stated how many motors are connected on the Motor Controller and how many command groups shall be used for that.

1. Motors connected

Options: • 1

1 − 18

2. Groups used

Options:

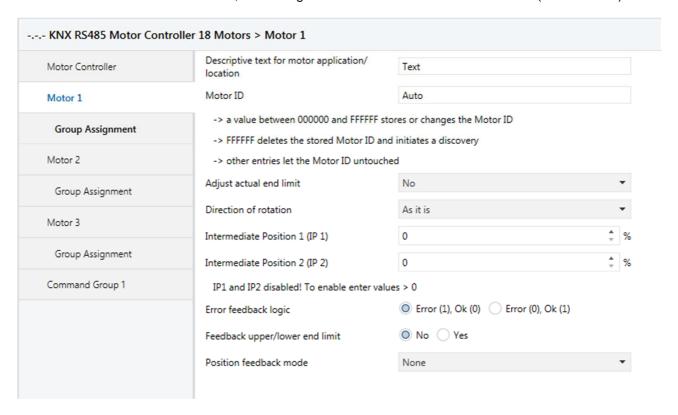
• 1

• 1 – 18



4.1.2 Menu index card "Motor 1"

The settings for the motors are exemplarily described on "Motor 1". Depending on the number of motors selected in the menu "Motor Controller", the settings have to be done for all further motors (motor 1....18).



1. Descriptive text for motor application/location

Here the name of the blind location can be entered, e.g. window number.

2. Motor ID

Here the motor ID can be entered or deleted. With "Auto" one of the discovered motor IDs will be taken. A-If "FFFFF" is set you have to set the parameter back to "Auto" to avoid that the Motor ID is deleted again after the next download.

3. Adjust actual end limit

Options:

- No
- Upwards
- Downwards

This parameter is to shift the taught-in end limit of the motor in the upper or lower direction. With the parameter "Upwards" or "Downwards" further menu parameters open.

A Before starting to download the set ETS-Parameter into the KNX RS485 Motor Controller, the blind has to be in the upper or lower end position which has to be shifted in the upper or lower direction.



This parameter should be used only for little adjustments of the limits and never to set completely the motor limits. Motor limits have to be set with the use of the "SDN configuration software or with the RS485 Setting Tool.

No

The end limit will not be adjusted.

Upwards

The end limit will be adjusted into the up direction by the set value as soon as the application is downloaded via the ETS software.



Set back to 'No' after first Download to avoid unwanted adjustments!

If "Adjust actual end limit" is set, you have to set the parameter back to "No" to avoid changing the end limits again!

Downwards

The end limit will be adjusted into the down direction by the set value as soon as the application is downloaded via the ETS software.



Set back to 'No' after first Download to avoid unwanted adjustments!

If "Adjust actual end limit" is set, you have to set the parameter back to "No" to avoid changing the end limits again!

4. Shift end limit by

Options: 10 – 50 pulses

The end limits of the motors are readjusted by 10 – 50 increments upwards and downwards.

⚠ Different revolutions are possible to adjust the actual end limits of the 3 motor types:

Sonesse50 RS485 or LT50 RS485 \approx 130 pulses Sonesse30 RS485 \approx 320 pulses Sonesse50 Ultra DC RS485 \approx 1680 pulses

End limits can be shifted between 10 and 50 pulses over ETS. If the targeted end limit is still not reached, the parameter has to be downloaded once again into the Motor Controller.



5. Direction of rotation

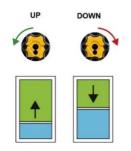
Options:

- Standard
- Inverted
- As it is

Should the roller shutter not move into the desired direction, e.g. downwards after an UP command, you can change the movement direction by adjusting "inverted".

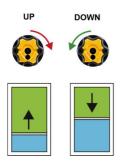
Standard

This will set the motor running direction. So, if an UP command is sent, the motor will move with an anticlockwise rotation.



Inverted

This will set the motor running direction. So, if an UP command is sent, the motor will move with a clockwise rotation.



· As it is

No change of the motor running direction.

6. Intermediate Position 1 (IP1) and 2 (IP2)

Options:

- 0
- 1 99 %

With these parameters the intermediate positions 1 and 2 are defined. The set value in % refers to the parameterized running time of the blind. To disable IP1 and IP2 the value 0 has to be entered. See table in chapter 4.2.2 "Automatic/Manual Function".

7. Error feedback logic

Options:

- Error (1), Ok (0)
- Error (0), Ok (1)

With this parameter the indication can be defined if an error occurs on the motor:

- 1/0 a telegram with the value "1" is sent if a motor error occurs (e.g. if the motor is blocked)
- 0/1 a telegram with the value "0" is sent if a motor error occurs



8. Feedback upper/lower end limit

Options: • No

• Yes

To activate or not the end limit feedback.

9. Position feedback mode

Options: • None

• On demand

• On status change

Cyclic

None

Position feedback is not activated.

On demand

The current position of the blinds must be requested via object 1.

Status change

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

Cyclic

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

8. Feedback cycle time

This parameter defines in which time intervals the current position of the blinds is messaged. Then the current position of the blinds is transmitted on the bus.

Options:

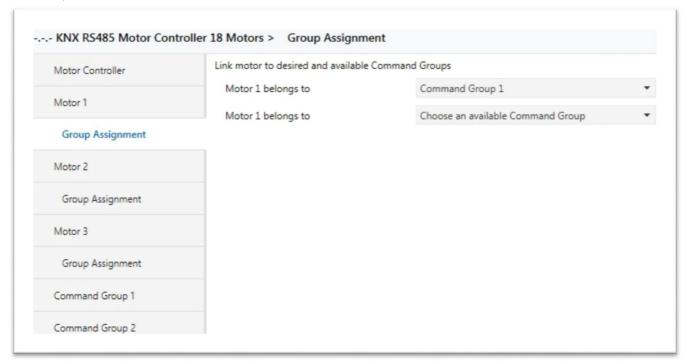
- 1 second
- 5 seconds
- 10 seconds
- 20 seconds
- 30 seconds
- 1 minute
- 5 minutes
- 10 minutes
- 20 minutes
- 30 minutes
- 60 minutes



4.2 Group Assignment

4.2.1 Menu index card "Group Assignment"

The settings for the group assignments are exemplarily described on "Motor 1". Depending on the number of motors selected in the menu "Motor Controller", the settings have to be done for all further motors (motor 1....18).



1. Motor 1 belongs to

Choose an available command group:

Options:

- Command Group 1
- Command Group 2
- Command Group 3
- Command Group 4
- Command Group 5
- Command Group 6
- Command Group 7
- Command Group 8
- Command Group 9Command Group 10
- Command Group 11
- Command Group 12
- Command Group 13
- Command Group 14
- Command Group 15
- Command Group 16
- Command Group 17
- Command Group 18

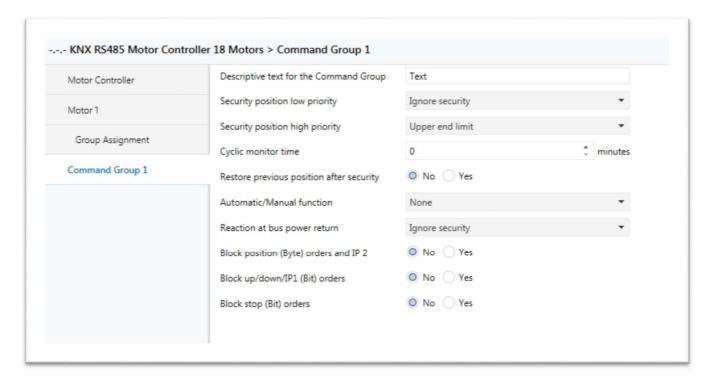
Depending on the selected number of "groups used" in the menu card "Motor Controller" the command groups for each motor can be chosen accordingly.

⚠ Each motor supports only 16 command groups.



4.2.2 Menu index card "Command Group 1"

The settings for the command groups are exemplarily described on "Command Group 1". Depending on the number of command groups selected in the menu "Command Group", the settings have to be done for all further command groups (command group 1....18).



1. Descriptive text for the Command Group

Here the name of the command group location can be entered. Several blinds can be grouped and named, e.g. floor, façade, room.

2. Security position low priority

Options:

- Upper end limit
- Lower end limit
- Intermediate position 1 (IP1)
- Intermediate position 2 (IP2)
- Ignore security
- Stop

If a on this communication object (object 159), the blind moves to the position parameterized in the ETS parameters.

If a telegram with the value "0" is received on this communication object, no operation is carried out. If the function "Restore previous position after security" is set with "Yes", the blind moves again to the last position before activating this priority position. If a motor is used in different groups (see chapter 4.2.1), security commands from the Master Control must be linked to all the groups containing this motor. See the picture in chapter 7 Appendix



3. Security position high priority

Options: • Upper end limit

• Lower end limit

• Ignore security

• Stop

If a telegram with the value "1" is received on this communication object (object 160), the blind moves to the position parameterized in the ETS parameters.

If a telegram with the value "0" is received on this communication object, no operation is carried out. If the function "Restore previous position after security" is set with "Yes", it is checked whether "Low priority" is active or inactive. When "Low priority" (value "1") is active, the blinds move to the parameterized "Security position low priority" (see previous point). If the "Low priority" (value "0") is also inactive, the blind moves again to the last position before activating the high and low priorities. If a motor is used in different groups (see chapter 4.2.1), security commands from the Master Control must be linked to all the groups containing the motor. See the graphic in chapter 7 Appendix

Emergency operation: It is possible to bypass the security priority mode using the local push buttons on the Motor Controller.

⚠ Do not cross command groups with different security functions when one motor is integrated in different command groups. Always use the same security function for all command groups!

4. Cyclic monitor time in minutes (0 - 255)

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

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

5. Automatic/Manual function

Options: • None

• Priority for automatic functions

Priority for manual functions

Parameter Settings	Activation commands	After blocked functions
Priority Automatic Commands	Automatic commands: • Move command Position 1 Byte (0-255) • IP 2	 Manual commands: Move command Up/Down 1 Bit Stop command 1 Bit IP 1
Priority Manual Commands	Manual commands: Move command Up/Down 1 Bit Stop command 1 Bit IP 1	Automatic commands: • Move command Position 1 Byte (0-255) • IP 2

None

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

Priority automatic functions

If an automatic command (1 byte move command) occurs prior to a manual command (1 bit move command), all manual commands are disabled. The object at the start-up of the intermediate positions 1 and 2



(objects 157 and 158) are also disabled. A manual command is also generated via the local push button inputs. However, a turn command (1 bit) can always be made within the parameterized turning time. A reset of the priority automatic function occurs when "Priority reset" (object 163) receives "1" or "0" on the corresponding object. Shifting between priority manual function (value "0") and priority automatic function (value "1") is done via the corresponding object (object 162). After changing to the corresponding priority the function is again in the reset state. This means that for priority automatic functions the manual commands are blocked only with the next automatic command.

Priority manual functions

If a manual command (1 bit) occurs prior to an automatic command (1 byte), all automatic commands are blocked. A manual command is also generated via the local push button inputs. A reset of the priority manual function occurs when "Priority reset" (object 163) receives "1" or "0" on the corresponding object. Shifting between priority manual functions (value "0") and priority automatic functions (value "1") is done via the corresponding object (object 162). After changing to the corresponding priority the function is again in the reset state. This means that for priority automatic functions the manual commands are blocked only with the next automatic command. Via the priority manual function the user has the option of switching off the automatic functions. User comfort can be defined, for example, with a timer: At 8 a.m. the priority manual function is activated via the corresponding object (162) and the user can move to the desired position using the manual functions until priority automatic functions change to priority automatic functions around 5 p.m. Via the corresponding object (162), switching to and from priority manual function and priority automatic function can be done at any time.





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

6. Reaction at bus power return

This parameter defines the position after a bus power return.

Options:

- Upper end limit
- Lower end limit
- Intermediate position 1 (IP1)
- Intermediate position 2 (IP2)
- Ignore security
- Stop



7. Block position (Byte) orders and IP2

Position orders (byte) can be blocked per object (161) using this parameter. If a telegram with the value "1" is received on the corresponding object during the movement of a blind, this movement is carried out up to the end. Only then further move commands (byte) and IP 2 are blocked. If a telegram with the value "0" is received on the corresponding object, the move commands (byte) are released again.

8. Block up/down/IP1 (Bit) orders

UP/DOWN orders (bit) can be blocked per object (161) using this parameter. If a telegram with the value "1" is received on the corresponding object during a movement of the blinds, this movement is carried out up to the end. Only then further UP/DOWN orders (bit) and IP 1 are blocked. If a telegram with the value "0" is received on the corresponding object, the UP/DOWN orders (bit) and IP1 are released again.

9. Block stop (Bit) orders

Stop (bit) can be blocked per object (161) using this parameter. If a telegram with the value "0" is received on the corresponding object, the stop or turn commands (bit) are released again.

5 Technical data

Supply voltage from KNX bus	KNX voltage 2132 VDC, SELV	
Rated current consumption KNX	As per KNX guidelines, <= 12.5 mA	
Supply voltage of local push buttons	SELV, 16 V DC	
Terminals	RJ45	
Operating temperature	- 5°C to 50°C	
Relative humidity	Max. 85 %	
Material of housing	PC-ABS	
Housing dimensions (w x h x d)	90 x 180 x 45 mm	
Degree of protection	IP 20	
Protection class	III	
Pollution degree	2	



6 General information

Master Reset

While reconnecting the KNX bus to the Motor Controller keep both local push buttons pressed until the KNX Prog LED lights up:

- The ETS project in the Motor Controller is deleted
- The saved motor IDs in the Motor Controller are deleted, except the motor ID of motor 1
- Up and Down push buttons on the Motor Controller are active.

Discovery mode between Motor Controller and motors

⚠ During the scanning process, some motors might not be found automatically. In this case the scan has to be repeated several times. If the motors are still not found, the motor IDs have to be entered manually.

Setting new end limits via Configuration Tool or Setting Tool after downloading the ETS project

After adjusting the end limits over the Configuration or Setting Tool, it is necessary to download the ETS project again to save the current running times in the Motor Controller.

Missing error feedback while no reaction of one or more motors

If the motors do not react to any move command after commissioning, it may be that the end limits are not adjusted. It also means that the error feedback object will not be activated. You won't be informed that the end limits are not set.

→ Check if the end limits are set by pushing the local Up and Down button on the Motor Controller.

Deleting motor IDs over ETS

It is possible to delete single motor ID's by setting "FFFF" instead of a motor ID and initiates the search of a new motor ID. It is also possible to delete all motor ID's by setting "rescan" in the motor ID of motor 1. A new search of motor IDs will be started afterwards.

If "FFFFF" or "rescan" is set, you have to set back the parameter to "Auto" to avoid that the Motor ID is deleted again after the next download.

Avoid to assign one motor in different command groups

Synchronized movement of motors is inevitable. Be aware that security and interlocking functions only work on command group level.

Security function:

If a motor is used in different command groups, security commands from the Master Control must be linked to all command groups containing this motor (see the example in chapter 7 Appendix).

....Unload application and address via ETS

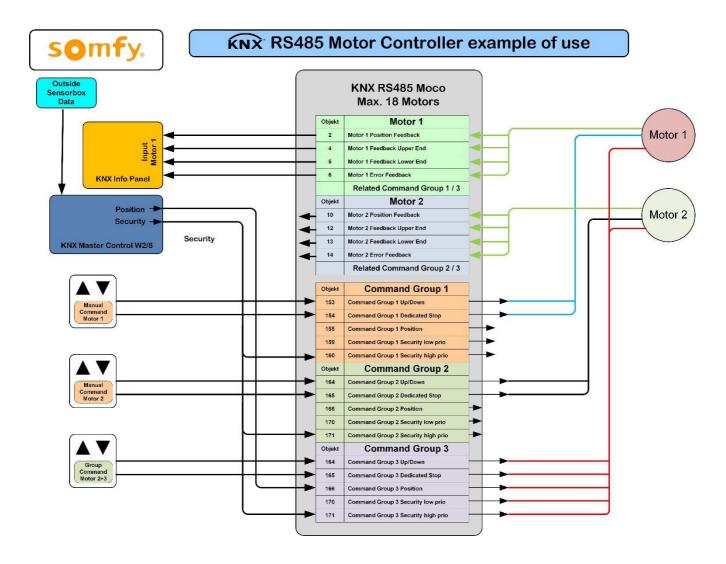
Saved motor IDs won't be deleted.

Write "rescan" in the motor ID parameter of motor 1 to delete all saved motor IDs of the Motor Controller. The search of motor IDs starts afterwards.



7 Appendix

Examples of use



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