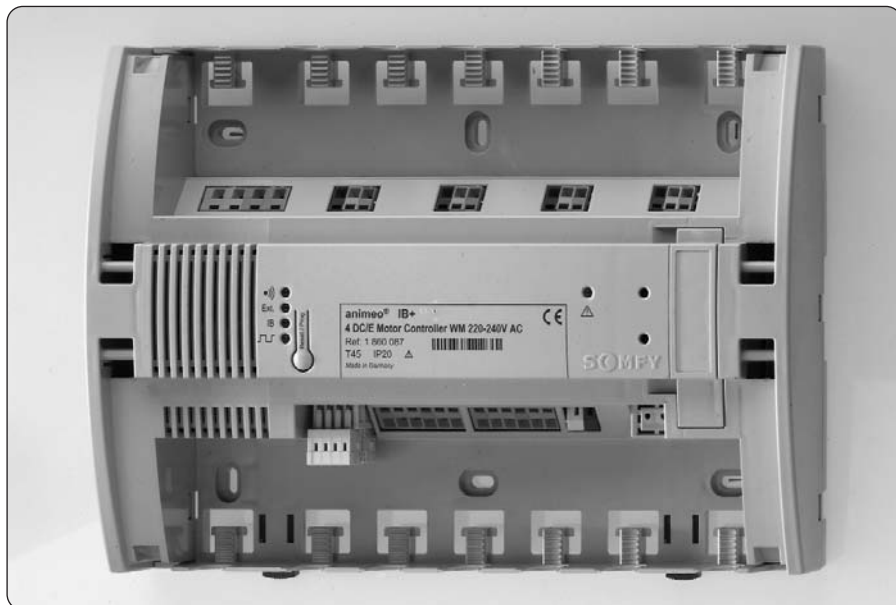


animeo® IB+

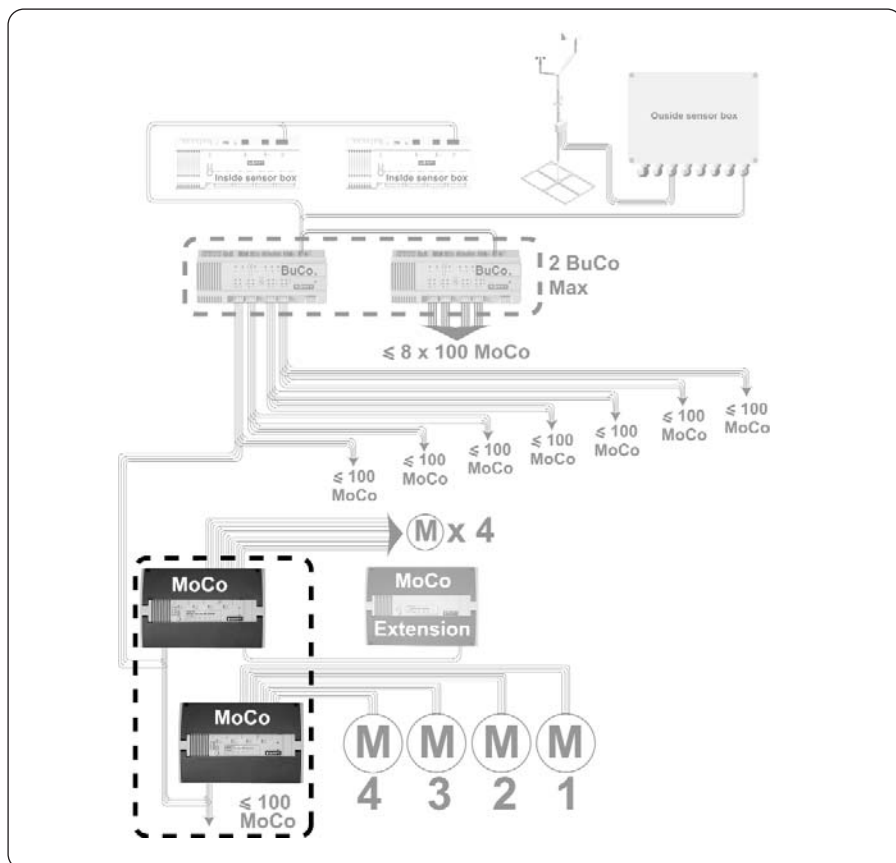
Motor Controller WM 4DC/E

Installation guide

The animeo 4 DC/E Motor Controller 220-240 V AC is designed to control motors of the concept 25 motor range (24 V DC)



System overview



Before installation, please read and follow these instructions. An incorrect installation could lead to serious injury. The product must be installed by a qualified electrician. SOMFY's liability for defects and damages is excluded if they were caused by disregard of the instructions. Keep these instructions for future reference.

Please refer also to the manuals of the other used products.

PRODUCT REFERENCE: **1 860 087**

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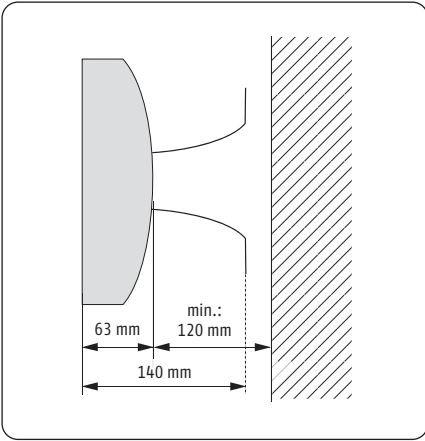
0. Definitions

The * symbols in the main text refer to the following terminology:

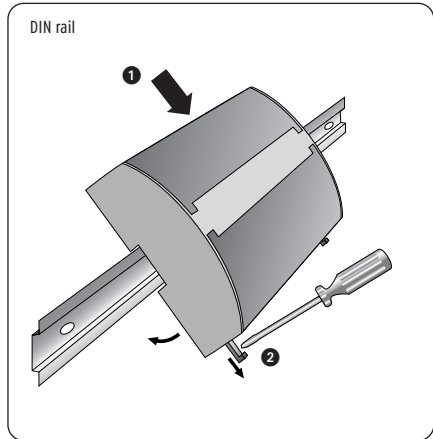
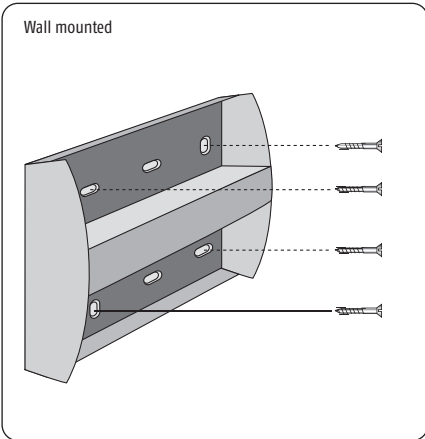
Running time/length	It is the dimension of the end-product. Into the software, the running time refers to the DCE and the unit is mm, the running length refers to the DC and the unit is second.
Tilting time/length	Impulses (DCE) or seconds (DC) for the slat to orientate from 90° to -90°.
Backlash	The mechanical slack can be compensated through this parameter. This is the number of pulses (DCE) or seconds (DC) before the blind starts to move the slats.
US mode	Short press (< 0.5 s): starts a full UP or DOWN operation. Long press (> 0.5 s): starts to tilt, STOP when pushbutton is released and starts a full UP or DOWN operation if the button is kept pressed.
European mode	Short press (< 0.5 s): tilt Long press (> 0.5 s): starts to tilt, STOP when pushbutton is released and starts a full UP or DOWN operation if the button is kept pressed.
Screen mode	The only possible movements are up and down.
Building Controller	The brain of the system. Connected to the PC, this device is able to store the configuration of the system. It is also able to manage the values sent by the different sensors and to send orders to the different zones. It is able to manage up to 8 zones.

1. Mounting

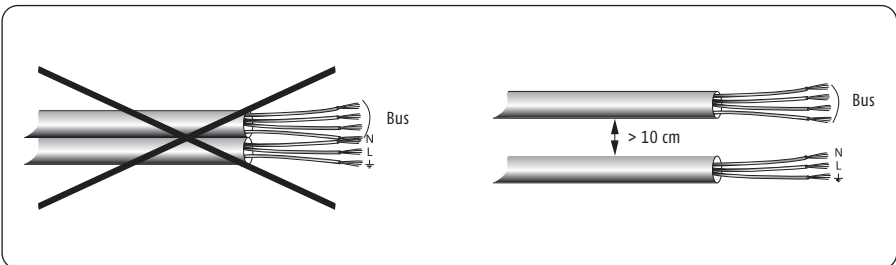
1.1 Choose the optimal location



1.2 Fix the device

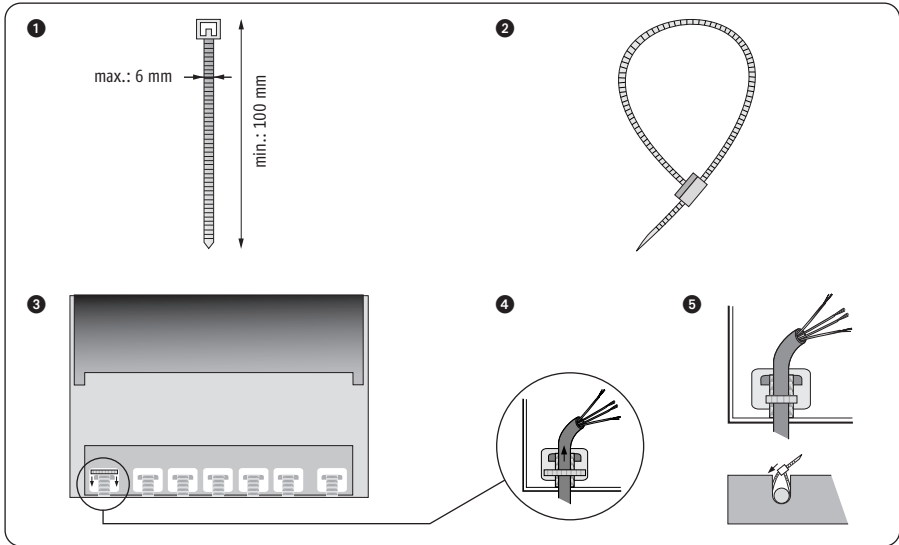


1.3 Connect power supply and wiring to other controls (cabling recommendations)

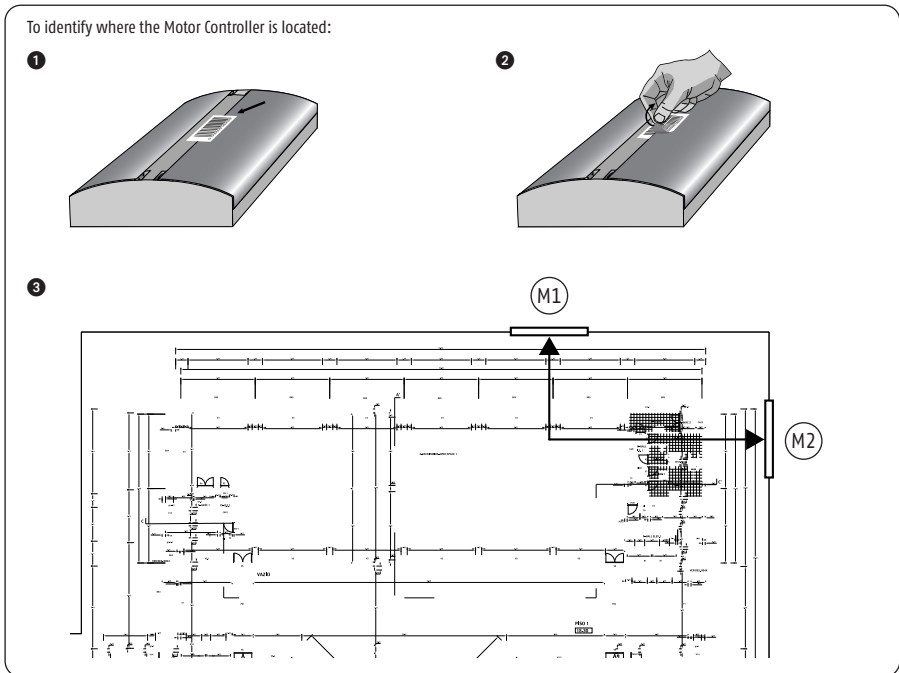


1. Mounting

1.4 Fasten cables with the cable ties

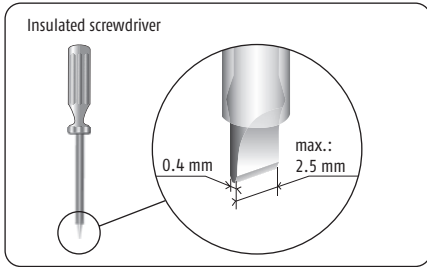


1.5 Stick the ID number on the building plan

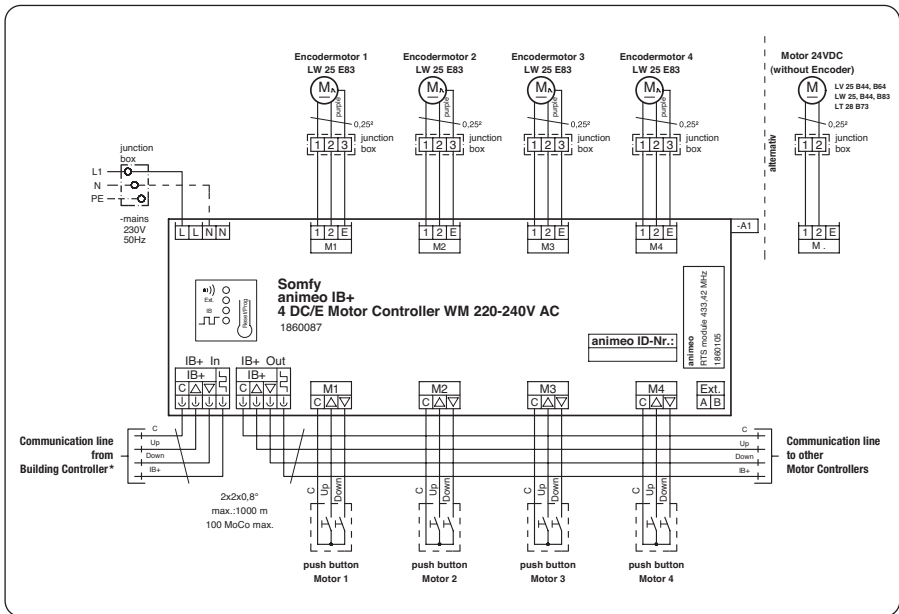


2. Wiring

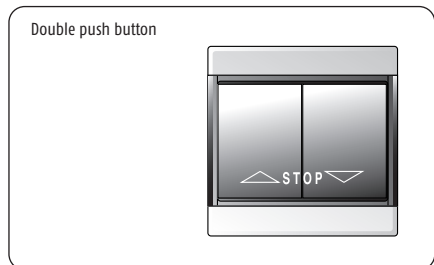
2.1 Recommended screwdriver



2.2 Wiring diagram



2.2.1 Push buttons possible to use



2. Wiring

2.2.2 Motor outputs

Max. current per output: 500 mA

Compatible with the following SOMFY motors in combination with CTS 25 enrolling system for venetian blinds:



LV 25-B44, -B64
DC mode
2 wires



LW 25-B44, -B83
DC mode
2 wires



LW 25-E83
DCE mode
3 wires



LT 28-B73
DC mode
2 wires

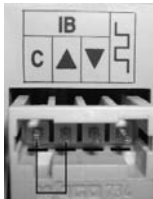
2.3 Cable specifications

Connection to	Cables	Twisted pairs	Max. distance
Motors	Min.: 2 x 0.6 mm ² /19 AWG Max.: 2 x 2.5 mm ² /13 AWG	-	20 m
Motor Controller Extension	Min.: 2 x 0.6 mm ² /19 AWG Max.: 2 x 2.5 mm ² /13 AWG	Required	50 m
Switches	Min.: 3 x 0.6 mm ² /19 AWG Max.: 3 x 2.5 mm ² /13 AWG	Recommended	100 m
IB+ input/output	Min.: 4 x 0.6 mm ² /19 AWG Max.: 4 x 1.5 mm ² /16 AWG	Recommended	1000 m
Power supply	Min.: 3 x 0.75 mm ² /16 AWG Max.: 3 x 2.5 mm ² /13 AWG	-	-

2.4 Check the correct running direction of the end product



DOWN (C + ▼)
The end product should go down



UP (C + ▲)
The end product should go up



STOP (C + ▼ + ▲)
The end product should stop

3. Configuration

3.1 Reset / Prog button

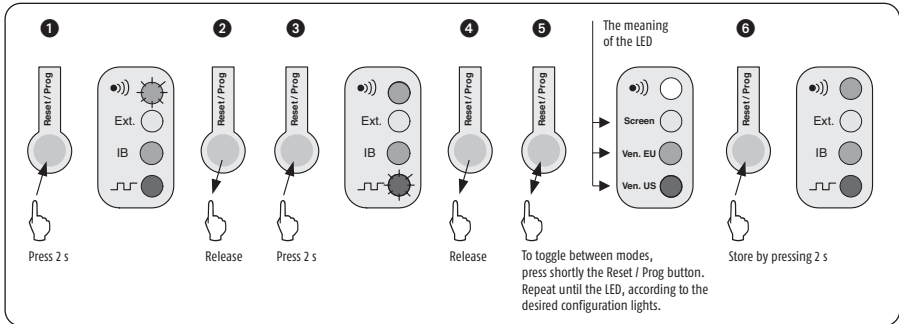
With this button, you can access the basic configuration of the Motor Controller.

3.1.1 Selection of end product type

Local push button ergonomics and the type of end products to be preselected:

- Venetian blind, European mode *
- Venetian blind, US mode *
- Screen mode *

The default mode of function is venetian blind, US mode *.

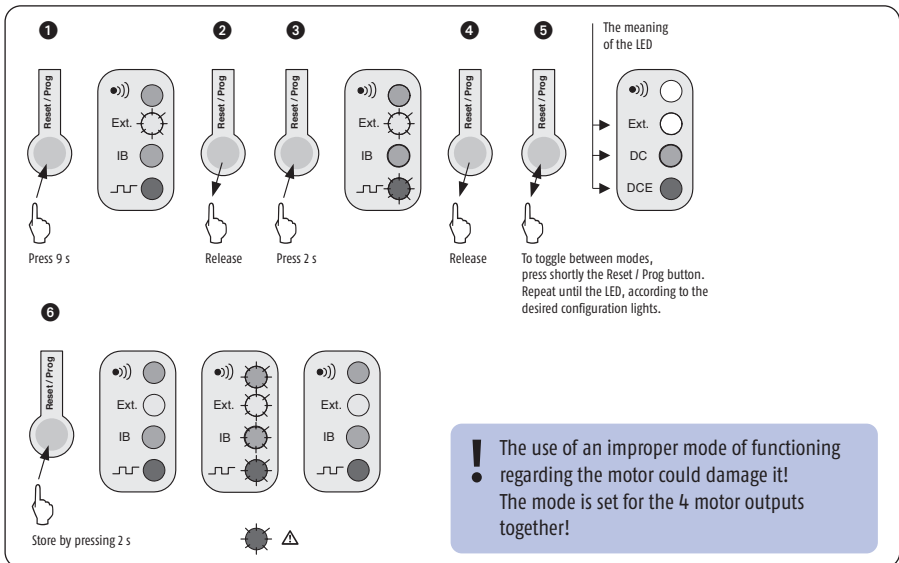


3.1.2 Mode selection DC or DCE

The type of motors controlled:

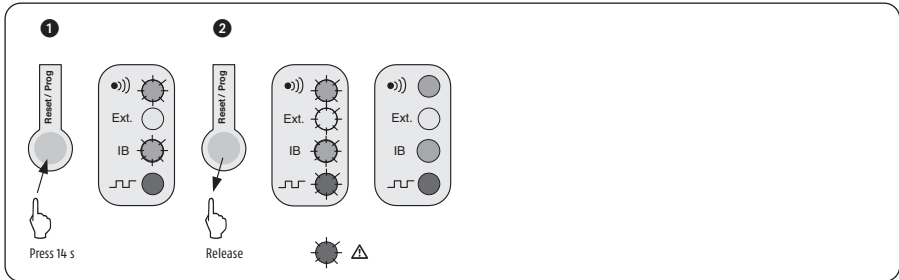
- DC
- DCE (in case of the use of a LW25-E83 motor, recognizable by the 3 wires)

The default mode of function is DCE.



3. Configuration

3.1.3 Resetting the Motor Controller to factory settings



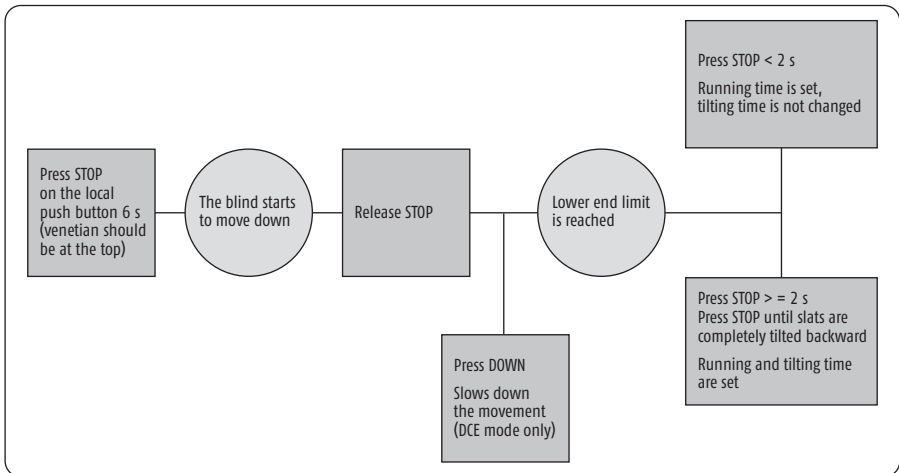
3.2 Set up of the Motor Controller

This section describes the set up of the running time/length *, the tilting time/length * and an intermediate position of the Motor Controller through the remote control or the wired switch.

3.2.1 Running and tilting times/lengths *

For installers knowing the Motor Controller 4DC, the procedure on the 4DC/DCE is the same. When you use the Motor Controller for the first time (or after a reset), a default running time/length* of around 35 cm (DCE) or 3 Minutes (DC) is already set up. The default tilt pulses are 110 (for DCE, should fit for 25 mm slats in combination with CTS 25 enrolling system) or 3 s (DC).

To set the tilting times/lengths * only, you have to do the procedure from the beginning and also reprogram the running times/lengths *. After learning running and tilting times/lengths *, a complete UP order has to be given so that the blind can identify its upper reference point.

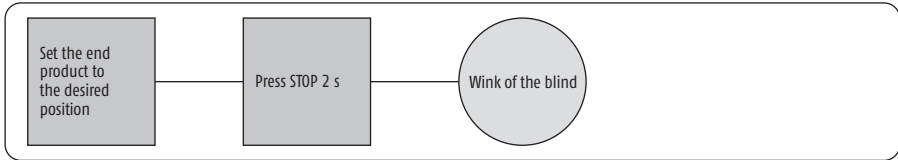


3. Configuration

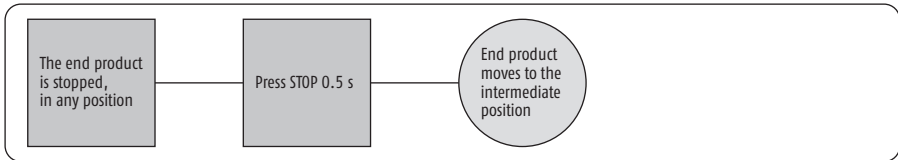
3.2.2 Intermediate position

A position that is set by the user with the local control. This can be any position between the upper and the lower end limit. The intermediate position could only be set after running & tilting times/lengths* are set!

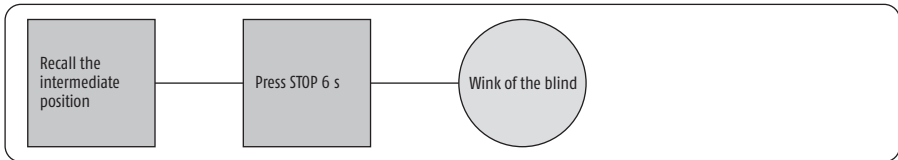
3.2.2.1 To set up an intermediate position



3.2.2.2 To recall an intermediate position



3.2.2.3 To delete an intermediate position



3.3 Set up of configuration parameters

All the configuration parameters can be set via PC and Building Controller by using the Operating Software or the Operating Interface (see “animeo Compact Operating Interface” or “Operating Software” installation guide).

Only the animeo System/Operating Software > = version 2.1 is compatible
 Only the Building Controller* > = Index B is compatible

Via the animeo Operating Software or the Compact Software, following parameters can be set:

Parameters	Operating Software	Compact Software
Running and tilting times/lengths*	•	•
Backlash*	•	•
Speeds for the UP/DOWN/TILT movements	•	•
Intermediate position*	•	-
Default position: The position when the end-product is not in use (e.g. after a reset)	•	-

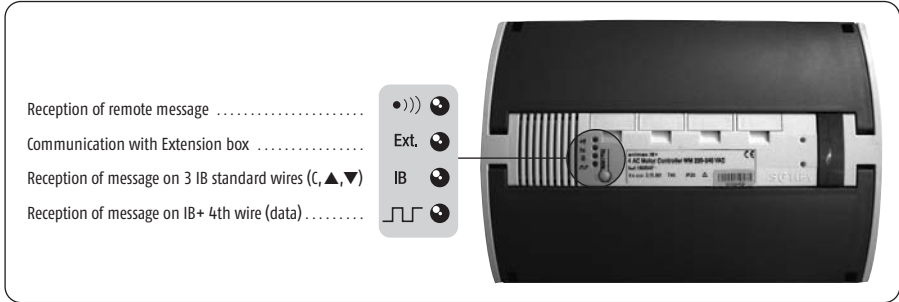
4. Diagnostics

4.1 LEDs of the Motor Controller

The LEDs on the front side of the Motor Controller can be used to have:

- Communication indications during the use (remote signal, IB+, ...)
- A reduced overview of the configuration
- A first level diagnostic

4.2 Communication indications during the use



4.3 Small overview of the configuration

Press shortly the Reset / Prog button (< 0.5 s)

LED	On (2 s)	Blinking
Green	Remote control detected	No remote control
Yellow	Screen with R&T times recorded	Screens without R&T times recorded
Orange	Venetian blinds European ergonomics with R&T times recorded	Venetian blinds European ergonomics without R&T times recorded
Red	Venetian blinds USA ergonomics with R&T times recorded	Venetian blinds USA ergonomics without R&T times recorded
▲ = Red	DCE	-
▲ = Yellow	DC	-

R&T times: Running and tilting times

4.4 First level diagnostic

4.4.1 Attention LED (▲)

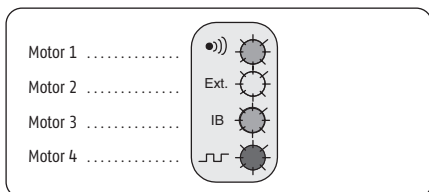
If ▲ or ▼ pressed and the Attention LED (▲) blinks in red (overcurrent), the following points should be checked:

- Short circuit on motor output or at least one cable is disconnected
- Encoder wire connected to a motor output connector marked with +/-
- Motor Controller in DC mode but DCE motors connected

If ▲ or ▼ pressed and the Attention LED (▲) blinks in yellow (regulation error): The set speed is too high regarding the size of the blind. Enter a lower speed in the Operating Software.

4. Diagnostics

4.4.2 Indication of the motor(s) concerned by the problem



To disable the error indicator, press shortly (< 0.5 s) the Reset / Prog button.

5. Characteristics

Motor Controller WM 4DC/E 220-240 V AC		Ref.: 1 860 087
Supply	Voltage	220-240 V AC
	Max. operating current	4 x 500 mA
	Standby power consumption	3.5 VA
	Max. operating current (primary) in standby	16 mA
	Fuses	T4A (not removable)
Mechanical data	Housing	Wall mounted
	Length / Height / Width	155 / 63 / 180 mm
	Weight	780 g
	Plastic	Type: PC ABS polycarbonate
Housing material	Recyclable	
Protection code	IP20	
Operating elements	Configuration mode & reset push button	
Inputs/Outputs	Short circuit secured	
Output power/motor output	Max. 500 mA at 24 V DC	
Temperature ranges	Operating temp.	0 °C to 45 °C
	Storage temp.	-20 °C to 70 °C
	Relative humidity	85 %
Conformity	CE by EN 60730-1:2000	
Wire lenght Motor Controller to motor	Max. 20 m	

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