

# MC DZ R



Art.-no.:  
01754000

## MC DZ R

Art.-no.: 01754000

Microprocessor-powered decentralised motor control with integrated individual operation for controlling roller shutters.

### Installation and Operating Instructions

#### Contents

1. General
2. Safety precautions
3. Technical data
4. Installation
5. Wiring diagram
6. Start-up
7. Display, operating and setting elements
  - 7.1 Short description of display, operating and setting elements
8. Individual operation
9. Setting the sun response sensitivity
10. Operating mode with sun
11. Operating mode with central command
12. Installing the Lux sensor
13. Application example

#### 1. General

The decentralised control system is used to manually and automatically operate shutters. Connecting a lux sensor enables you to also control the connected shutter system according to sun intensity. The central command is connected to the control system via a standard 3-wire BUS. One control device is required per shutter drive; this enables either central or individual operation.

#### 2. Safety precautions

- Contact a professional electrician to install the control system, because the control system requires a power supply of 230VAC, 50 Hz.
- Check the control system for signs of mechanical damage after unpacking. If you notice any shipping damage, do not start up the control system and notify your supplier immediately.
- The control system should only be used for the purpose specified by the manufacturer (refer to the operating instructions). Any changes or modifications thereof are not permissible and will result in loss of all warranty claims.
- If the control unit cannot be operated without presenting a hazard, it must be switched off and prevented from being switched on unintentionally.
- When performing work on the windows, controls or connected shades, protect them against unauthorised or unintentional operation.

#### 3. Technical data

Power supply:	230VAC, 50 Hz
Impulse voltage withstand level:	2.5 kV
Rated power:	2 W
Output:	230VAC, 50 Hz
Maximum load:	250VAC, 3A, cos φ ≥ 0,8 ind.
Align switching time up/down:	120 seconds
Software class:	A
Operating temperature:	0 °C to +40 °C 32 °F to 104 °F
IP class:	IP 40
Degree of contamination:	2
Dimensions (L x W x H):	50 x 50 x 45 mm (without cover frame)
Colour information:	signal white (similar to RAL 9016)
Mark of conformity:	CE

#### 4. Installation



**WARNING!**  
**Risk of injury due to improper installation and commissioning.**  
Improper installation and commissioning may lead to personal injury or property damage.  
Therefore:  
– When connecting the device, observe the currently valid VDE standards (in particular DIN VDE 0100/0700), your local power company's regulations and the current accident prevention regulations.  
– Connect the control in accordance with the wiring diagram.

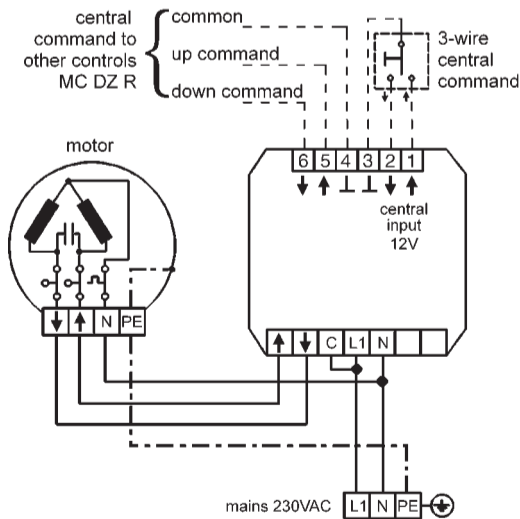
#### Notes for professional electricians

1. Switch off the power supply.
2. Connect the power supply in accordance with the wiring diagram.
3. Fit the power supply into a deep flush box and fix in place.
4. Fit the frame cover.
5. Fit the operating device into the power pack by applying gentle pressure to the frame cover.
6. Switch on the power supply.
7. You can test the direction of the sunshade using the "Up" and "Down" buttons.

#### 5. Wiring diagram



**WARNING!**  
– Parallel control of more than one roller shutter drive motor can only be implemented by means of isolating relays and group control devices.  
– The central command can only be connected via a 3-wire central line.  
– The central line must not exceed 100 m.



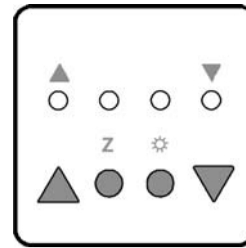
#### 6. Start-up

Fit the frame cover onto the operating device then switch the power supply on.

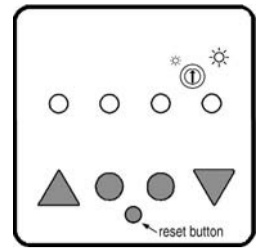
The control system will be initialised, during which time the LEDs will flash. The control system will then be ready for use. Operating modes with sun or with central command are turned off.

Use the Up and Down buttons to check the direction of the connected sunshade. The control system will then be ready for use.

#### 7. Display, operating and setting elements



Front view



Front view without cover cap

#### 7.1 Short description of display, operating and setting elements

##### Display elements:

- ▲ : LED display for shutter Up
- ▼ : LED display for shutter Down
- Z : LED display for operating mode with central command
- ☀ : LED display for operating mode with sun function

##### Operating elements:

- ▲ : Shutter Up
- ▼ : Shutter Down
- Z : Selector button for operating mode with central command ON/OFF
- ☀ : Selector button for operating mode with sun function ON/OFF

##### Setting element:

- Ⓜ : Potentiometer to set the response sensitivity to the sun intensity

#### 8. Individual operation

If you press the **Up** or **Down** button, the shutter will immediately be raised or lowered and the green LED will flash under the respective Up or Down symbol, as long as the central control is not performing any travel commands. Any travel commands performed manually on the decentralised shutter controls can be interrupted by pressing the opposite button. To resume raising or lowering of the shutter, press the Up or Down button again.

#### 9. Setting the sun response sensitivity

Set the response to the sun intensity with the potentiometer and the delivered adjustment tool. For this, gently remove the control system cover.

- Ⓜ : The roller shutter moves down at a low sun intensity (approx. 5 kLux).
- Ⓜ : The roller shutter moves down at a medium sun intensity (approx. 25 kLux).
- Ⓜ : The roller shutter moves down at a high sun intensity (approx. 50 kLux).

#### 10. Operating mode with sun

When connected to a lux sensor, the control system automatically lowers the shutter according to sun intensity. The sensor is attached to the window pane using the suction pad and constantly monitors sun intensity. If the individually-set threshold value is reached, the control system will lower the shutter once the sun down time delay has elapsed. The shutter will be lowered until it is shading the sensor. To free up the sensor for further monitoring, the shutter is then raised a few centimetres until it reaches the designated "shade position". Press the ☀ button to activate the operating mode with sun. The sun function is then enabled and the green ☀ LED lights up. In this operating mode, the shutter lowers automatically (after the response delay of 1 minute) when the value set for sun response is reached or exceeded. However, if sun intensity falls below the sun response value for a period of 16 minutes, the shutter will be raised again automatically. Automatic control of the shutter can be interrupted at any time by pressing the appropriate direction button.

#### 11. Operating mode with central command

Press button **Z** to activate central control operating mode. The green LED over the **Z** symbol will light up. In this mode, the roller shutter will travel according to the pre-set up/down command on the central control.

A red LED under the Up or Down symbol lights up to indicate that a central command is being performed. When the red LED under the Up or Down symbol lights up, the shutter will immediately be raised or lowered and cannot be stopped using the Up or Down button on the control. The shutter can only be stopped immediately by disabling the operating mode with central command. To do this, press the **Z** button and the green LED will go out.

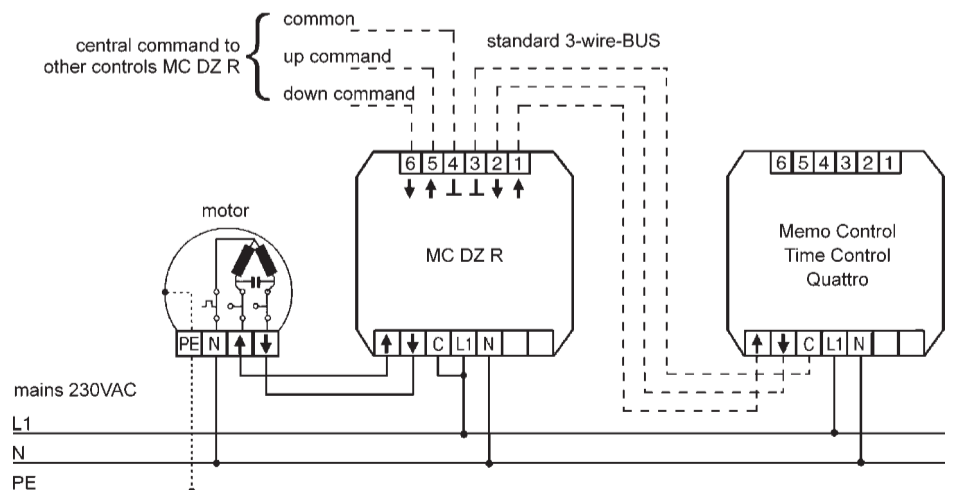
#### 12. Installing the Lux sensor

For the sun function, one lux sensor is required for every control system. However, only one lux sensor may be connected to a control system. The sensor cable must not be extended. Install the sun sensor as follows.

1. Remove the operating device from the power supply.
2. Plug the lux sensor connector into the socket on the front of the power pack.
3. Gently press the operating device back into the power supply.
4. Attach the lux sensor at the desired location on the window pane.
5. Activate the sun function operating mode.

The following lux sensors are available for the MC DZ R decentral control system:  
 LS 1 TQ, cable length 1 m, article-no. 01130130  
 LS 2 TQ, cable length 2 m, article-no. 01130230  
 LS 3 TQ, cable length 3 m, article-no. 01130330  
 LS 5 TQ, cable length 5 m, article-no. 01130530

#### 13. Application example



Individual control with central input via standard 3-wire BUS



**The disposal of electrical equipment and batteries in household waste is strictly forbidden.**  
The symbol (dustbin crossed out, in line with WEEE Appendix IV) indicates separate collection of electrical and electronic products in EU countries. Do not dispose of the device or battery in your household waste. Ask your town or local council about the return and collection systems available in your area to dispose of this product.