

Motor control insert Universal AC 230 V ~
Art. No. 232 ME

Operating instructions

1 Safety instructions

Electrical equipment may only be installed and fitted by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Danger of electric shock. Always disconnect before carrying out work on the device or load. At the same time, take into account all circuit breakers that supply dangerous voltage to the device or load.

Risk of injury. Use the device only for controlling Venetian blind and roller shutter motors or awnings. Do not use it to switch other loads.

For parallel connection of several motors to an output it is essential to observe the corresponding instructions of the manufacturers, and to use a cut-off relay if necessary. The motors may be destroyed.

Use only venetian blind motors with mechanical or electronic limit switches. Check the limit switches for correct adjustment. Observe the specifications of the motor manufacturers. Device can be damaged.

These instructions are an integral part of the product, and must remain with the end customer.

2 Device components

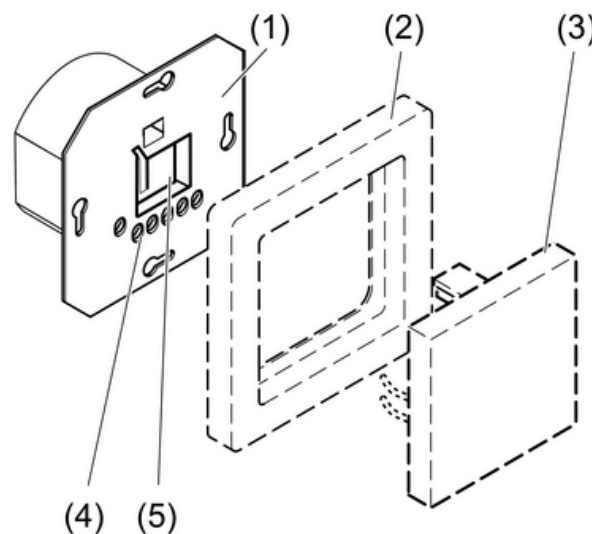


Figure 1

- (1) Venetian blind control
- (2) Frame
- (3) Shutter cover
- (4) Terminals
- (5) Space for sensor terminal block

3 Function

Intended use

- Controlling electrically driven blinds, rolling shutters and awnings
- Operation with suitable shutter cover
- Installation in appliance box according to DIN 49073

Product characteristics

- The integration into group controls or master controls is possible by means of extension inputs
- Operation as a main device or extension unit
- Relay contacts of both running directions are mechanically interlocked
- Supports sensor functions of the cover
- Wind alarm interlock via the extension input

4 Information for electrically skilled persons

4.1 Fitting and electrical connection



DANGER!

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

Before carrying out work on the device or load, disengage all the corresponding circuit breakers. Cover up live parts in the working environment.

Connecting and mounting the Venetian blind control

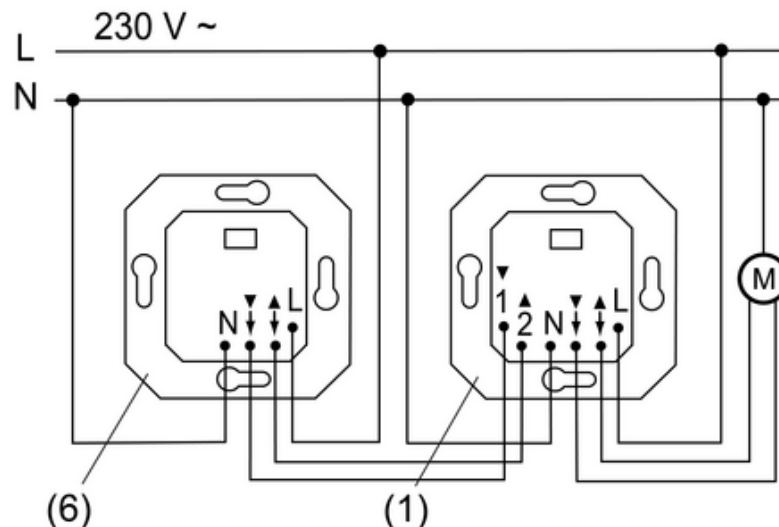


Figure 2: Control with extension

- Venetian blind control (1) for local control. Optional: Connection of an extension (6) (figure 2). A mechanical blind button or blind switch can also be used as an extension instead of the venetian blind control.
- Install Venetian blind control in appliance box, terminals must be at the bottom. Recommendation: Use deep accessory sockets.
- If multiple miniature circuit breakers supply dangerous voltages to the device or load, couple the miniature circuit breakers or label them with a warning, to ensure disconnection is guaranteed.
- Attach the frame and the cover.

- Check function. If the blind/shutter moves in the wrong direction, exchange the connections.
- ❗ As long as an Up command is active on extension unit input 2, the Venetian blind cannot be operated either manually or automatically.

Integrating the device into a group control

The venetian blind control can be integrated into a group control (1) (figure 3), either for local control or as a master unit (7).

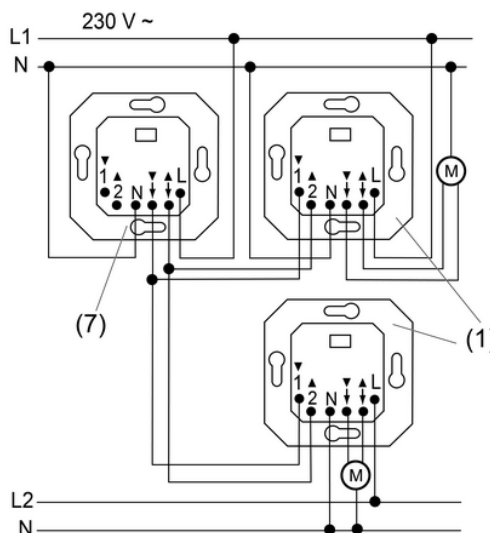


Figure 3: Connection example of group control

- Connect the venetian blind controls according to the connection example (figure 3). The Venetian blind inserts can also be connected to different external conductors.
- ❗ As long as an Up command is active on extension unit input 2, the Venetian blind cannot be operated either manually or automatically.

Implementing Venetian blind control via various residual current devices

In order to prevent undesirable triggering of the residual current devices, the electric circuits must be decoupled by means of a Venetian blind cutoff relay.

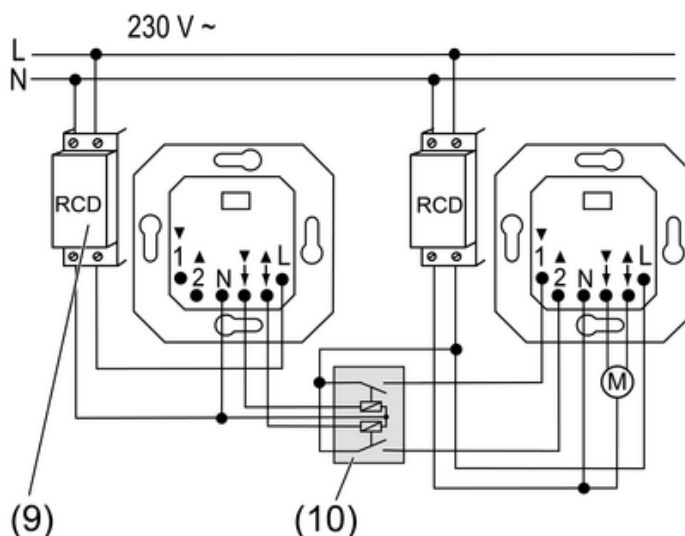


Figure 4: Connection example of two RCD circuits

(9) Residual current device (RCD)

(10) Venetian blind cutoff relay

- Connect the devices according to the connection example (figure 4).

Implementing a wind alarm

Wind sensors serve to protect a Venetian blind from being destroyed by a strong wind. The Venetian blind is moved to a safe end position and locked there until the wind drops below the set threshold value.

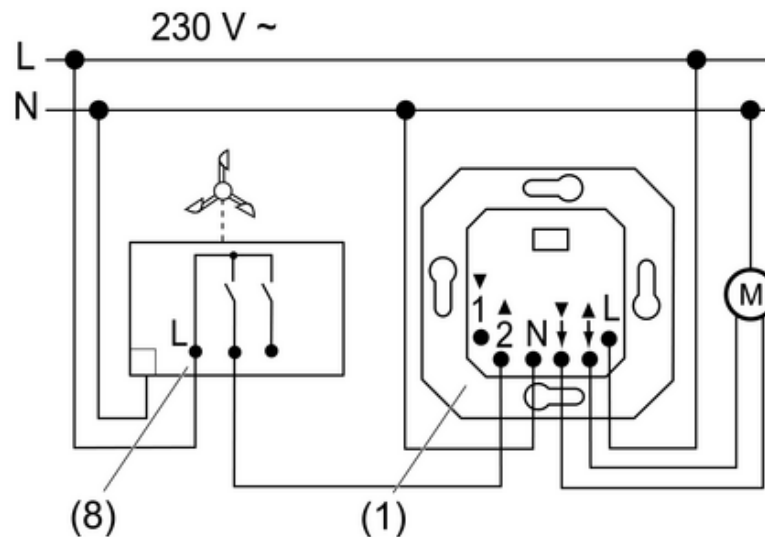


Figure 5: Connection example of wind sensor

- Connect the wind sensor (8) according to the connection example (figure 5). The wind alarm is implemented via extension input 2.
- i** In order to use the wind alarm for all external Venetian blinds of a building, the wind sensor must be connected to extension unit input 2 of the master control.
- i** As long as an Up command is active on extension unit input 2, the Venetian blind cannot be operated either manually or automatically.

4.2 Installing sensor cable for covers with sensor evaluation

Installation instructions for sensors

- i** The sensor cable carries safety extra-low voltage (SELV). Observe fitting instructions according to VDE 0100.

The sensor cable can be installed in three different ways. In-wall routing (figure 7), surface-mounted routing (figure 8), and with appropriate covers plugging the sensor cable into the cover (figure 9).

- i** The sensor cable must not be too long, because otherwise interference from other loads and cables may occur. This may result in malfunctions. Therefore use only shielded cables, and connect the shielding to earth. The total length must not exceed 20 m; avoid proximity to other electrical facilities.

Connecting sensors to terminal block

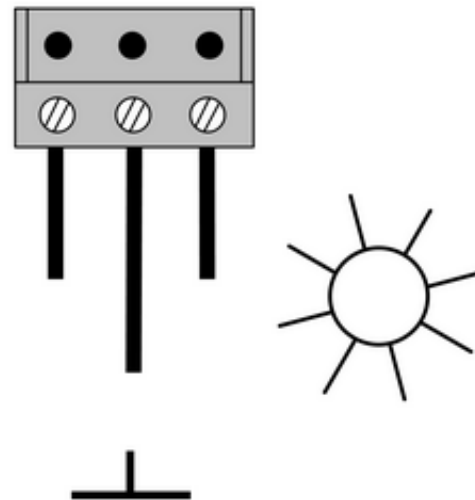


Figure 6: Connection to the terminal block

- Connect sensors as shown in connection diagram (figure 6).
For the sun sensor, the "ground" is identified.
For the extension, the "sun" is identified. The "ground" is the middle cable.
- i** Interchanging the connections will result in malfunctions.

Routing the sensor cable in-wall

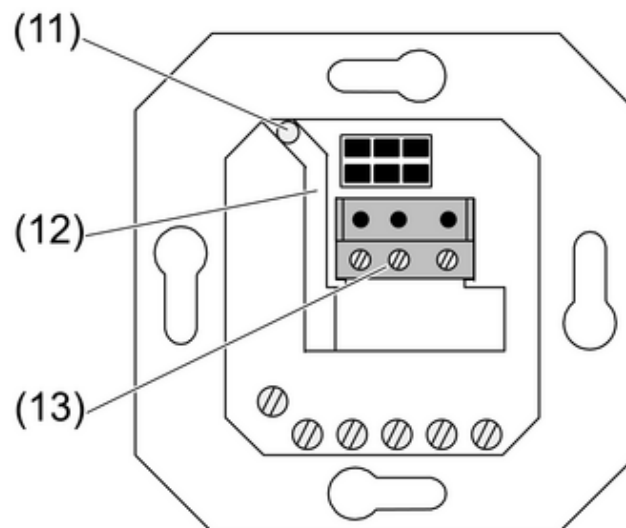


Figure 7: In-wall routing of the sensor cable

- i** For in-wall routing of the sensor cable, use only shielded cables. Recommendation: J-Y (ST)Y 2x2x0.6 mm.
- Insert the cable through the hole (11) in the insert and route it through the cable duct (12) to the terminal block (13) (figure 7).
- i** The terminal block is included with the covers with sensor evaluation.
- Connect the cable (see "Connecting sensors to terminal block")

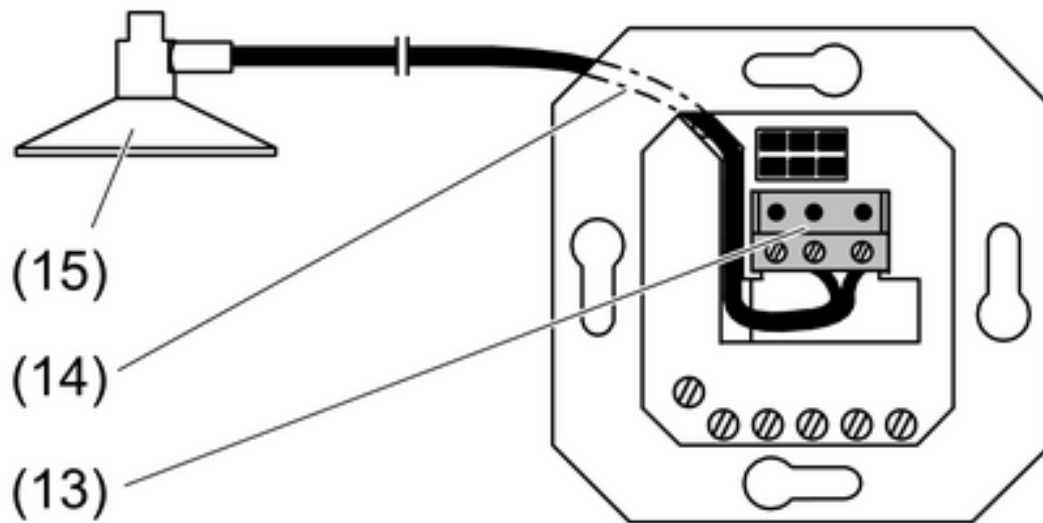
Routing the sensor cable with surface-mounting

Figure 8: Surface-mounted routing of the sensor cable

- For surface-mounted routing of the indoor sensor (15), cut off the plug.
- Route the sensor cable behind the supporting plate (14) and through the cable duct to the connecting terminal (13) (figure 8).
- Connect the cable (see "Connecting sensors to terminal block")

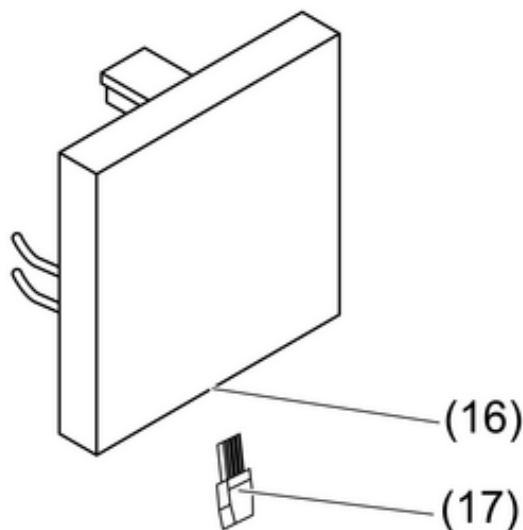
Plugging the sensor cable into the cover

Figure 9: Sun sensor on the cover

It is only possible to connect the sun sensor to the cover if a corresponding socket is present. This is not the case for all covers with sensor evaluation.

- Insert plug (17) into the socket of the insert (16) (figure 9).

5 Appendix

5.1 Technical data

Rated voltage	AC 230 V ~
Mains frequency	50 Hz
Ambient temperature	0 ... +55 °C
Contact type	μ contact
Length of the sensor cable	max. 20 m
Connection	
Motors	1000 W
Data according to EN 60730-1	
Action	1.B
Degree of soiling	2
Measured surge voltage	4000 V
SELV limit value	DC 12 V

5.2 Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

We provide a warranty as provided for by law.

Please send the device with a description of the defect to our central customer service office.

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