

AeroTec

Nr. 28 140.0001

e l e r o
Sun Shading Solutions **Nice**



(EN) Operating Instructions (translation)
Please keep the instructions in a safe place.

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Safety instructions



Warning!



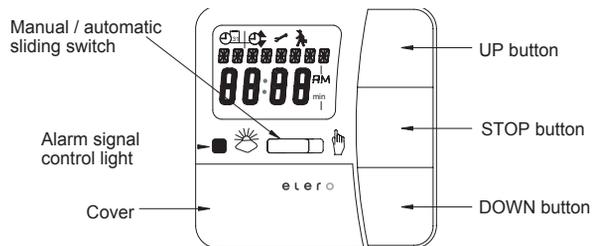
Important safety instructions!
Always observe the following instructions.

Risk of injury by electric shock.

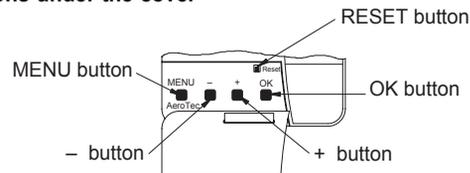
- All terminal connections to a 230 V network **must** be made by an authorised electrician.
- Before assembly, always disconnect the mains lead from the power supply.
- The provisions of the local public utilities and stipulations for wet and damp rooms in accordance with VDE 100 must be observed when the system is connected.
- For use in dry rooms only.
- Use unmodified elero original parts only.
- Keep persons away from the systems guide track.
- Keep children away from controls.
- Always comply with national stipulations.
- Dispose of used batteries properly. Replace batteries with identical type (CR 2032) only.
- If the system is controlled by one or more devices, the system guide track must be visible during operation.
- Only cables with sufficient electric strength may be used to connect control cables (protective low voltages).
- The equipment contains small parts that could be swallowed.

Explanation of displays and buttons

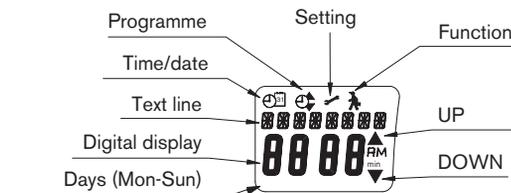
Explanation of displays and buttons



Buttons under the cover



Display symbols



General information / Designated use

General information

The AeroTec timer is pre-programmed ex works with current date and time (CET) settings and operates your sun protection system on the basis of sunlight intensity and wind speed.

The AeroTec timer can be operated manually at any time.

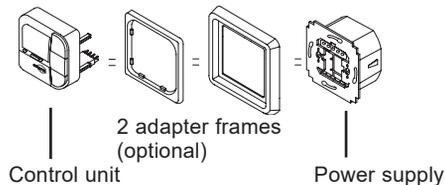
This device runs on battery power, meaning it can even be programmed if the operating device has been removed, as the display does not disappear

Designated use

The AeroTec timer may be used to operate sun protection systems **only**.

This device may only be used in connection with equipment from other manufacturers following consultation with your local retailer.

Installation / Connection



Installation / Connection

Connection as a drive controller

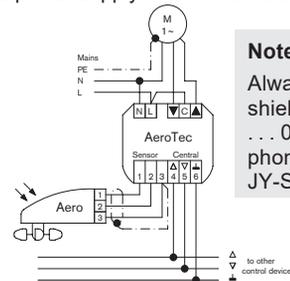
For details on suitable control systems, please refer to the control product catalogue.



Risk of injury by electric shock!

- Terminal connections must be carried out by an authorised electrician!
- If more than one drive is operated using the AeroTec, the drives must be decoupled by relay controls.
- The switched current of the device must be observed at all times!

1. Remove the protective caps.
2. Connect the power supply unit of the AeroTec timer as follows:



Note!

Always use a shielded control wire ... 0.8 mm or telephone line JY-ST ... 0.6 mm.

3. Replace the protective caps on the power supply unit.
4. Secure the power supply unit in the box.
5. Insert the operating device into the frame and plug it into the power supply unit.

Connection

Connection as a group controller

You can find the structure of a controller on elero.com in the download area under "Installation instructions and circuit diagrams".

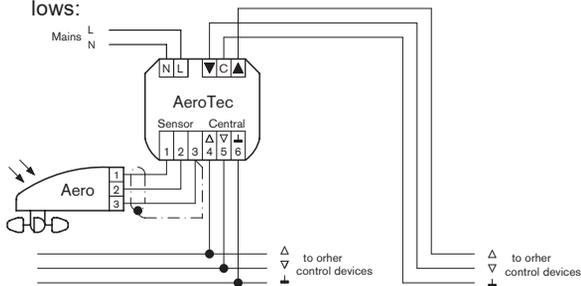


Warning!

Risk of injury by electric shock!

- Terminal connections must be carried out by an authorised electrician!

1. Remove the protective caps.
2. Connect the power supply unit of the AeroTec timer as follows:



Note! Always use a shielded control wire . . . 0.8 mm or telephone line JY-ST . . . 0.6 mm.

3. Replace the protective caps on the power supply unit.
4. Secure the power supply unit in the box.
5. Insert the operating device into the frame and plug it into the power supply unit.

Sensors / Factory settings

Sensors

Note: Various types of sensors can be connected to the device
→ Please refer to the relevant operating instructions for your chosen sensor.

- Sun sensor (Lumero)
- Sun sensor (Lumo)
- Sun and wind sensor (Aero)
- Rain sensor (Aquero)
- Wind sensor (Ventero)

Initial operation

To activate the AeroTec timer, touch any button on the device. To select the language required use the **+/-** buttons and confirm your selection with the **OK** button. The AeroTec timer is now in automatic operating mode.

Factory settings

TIME/DATE: – current CET and current date

SETTING: – Threshold value SUN ▼ 04 and SUN ▲ 03
– DELAY ▼ 3 min. } EXPERT MODE
– DELAY ▼ 15 min. }
– END LIMIT
– SUMMER/WINTER ON

FUNCTION: – AWNING, DRIVE CONTROLLER, EXTERNAL SWITCH, ALARM SIGNAL ON, EXPERT MODE OFF

Note: Press the **RESET** button (with a ballpoint pen or similar object) to restore the factory settings of the AeroTec timer.

Exception: Function and language selection menu.

Explanation of functions

Manual/ Automatic sliding switch

In the “**MANUAL** ” mode, only manual control commands and alarm signals are executed.

When the sliding switch is set to “**AUTO** ”, automatic control commands are carried out (e.g. wind alarm, ...)

Alarm signal control light

If the alarm signal control light is illuminated, this indicates an alarm signal. An alarm signal is a continuous switching signal at the group control inputs which lasts for more than 5 seconds.

Group control

Group control refers to the simultaneous control of several drives.

Operating mode

The current wind and/or sunlight settings can be seen in the display.

OK button

Press the **OK** button to store the current values displayed.

To activate the test mode, press the **OK** button and hold for 5 seconds. In addition, the MANUAL/AUTO sliding switch must be set to **AUTO**.

Semi-automatic mode

Semi-automatic mode

The system is in AUTO mode.
The system switches to semi-automatic mode, as soon as you press a button on your AeroTec.

The automatic sun protection is disabled in semi-automatic mode. No automatic motion is triggered from the undershoot/overshoot of the light threshold value.

The system stays in the position it has been driven too and the set points and reached values are shown on the display.
The wind monitor remains active.

Leave semi-automatic mode:

Set the sliding switch on the Aero Tec briefly to MANUAL mode and then to AUTO mode again.
The system retracts automatically.

or

Press the **UP** button.
Approach the upper limit stop.
The drive switches off automatically when the upper limit position is reached.

or

The system retracts automatically, once the lowest light value (step 1) is undershot.

or

The system is retracted with a “wind“ command.

Afterwards the system is in AUTO mode again.

Explanation of functions

+/- buttons

The following features can be operated using the + and – buttons:

- **Menu** → Change setting
- **AUTO** mode → Request information
 - + Button → Next automatic switching time ▲
 - – Button → Next automatic switching time ▼

MENUE button

By pressing the **MENU** button, you can see an overview of the menu or the operating mode.

The currently displayed values are **not** stored.

Reset button

Press the **RESET** button (with a ballpoint pen or similar object) to restore the factory settings of the AeroTec timer.

Exception: [Function and language selection menu](#).

Explanation of functions

Time/date menu

TIME/DATE

This menu is used to set the time and the date.

Programme menu

PROGRAMME

The PROGRAMME menu allows you to choose between switching- and blocking times.

These can be set via the PROGRAMME menu.

SWITCHING TIME

Programmable switching times for extension and retraction of sun protection systems.

BLOCKING TIME

Ensures that your awnings are not extended too early or retracted too late.

E.g.: blocking time ▼: 9:00

The sun protection system (awning) will **not** be extended before 9 a.m.

Blocking time ▲: 16:00

The sun protection system (awning) will be retracted at 4 p.m. even if the sun is still shining.

SETTING menu

Im Menü EINSTELLUNG haben Sie folgende Möglichkeiten:

- SUN ▼ (if a sensor is connected)
- DELAY ▼ (only possible if expert mode is ON and a sensor is connected)
- SUN ▲ (if a sensor is connected)
- DELAY ▲ ((only possible if expert mode is ON and a sensor is connected)
- INTERMEDIATE POSITION
- CANOPY TENSION
- WINTER ON/OFF
- WIND CONTROL (if a sensor is connected)
- TIME END LIMIT/INTERMEDIATE POSITION/CANOPY TENSION (only for pre-programmed switching or blocking time)
- LIGHT END LIMIT/INTERMEDIATE POSITION/CANOPY TENSION (if a sensor is connected)
- TEST MODE ON/OFF (if a sensor is connected)
- Language selection (GERMAN)
- SUMMER/WINTER (automatic clock adjustment for daylight saving)

To make settings, press the **OK** button repeatedly until you reach the menu level required.

SUN ▼ / SUN ▲

The threshold value for SUN ▼ is pre-set to 04 and for SUN ▲ to 03. The brightness value can be set to values ranging between 01 (very overcast) and 15 (direct sunlight).

The existing sunlight setting and the new setting to be made are shown on the display. The field for the new sunlight setting flashes.

Settings menu

DELAY ▲ ▼ (only when EXPERT MODE is ON)

The delay time ▼ is pre-set to 3 min and the delay time ▲ is pre-set to 15 min.

The delay time ▼ indicates the period between the moment the threshold setting **SUN ▼** is exceeded and the control command is executed.

This setting can be made manually.

The delay time p indicates the period between the moment the sunlight reading falls below the pre-set threshold value **SUN ▲** and the 'retract' control command is executed.

This setting can be made manually.

END LIMIT

The end limit position is described as the point at which the sun protection system has reached the upper or lower limit position.

INTERMEDIATE POSITION

The intermediate position lies between the upper and lower limits of the sun protection system and can be freely selected. The sun protection system is adjusted into this position from the upper position after programming.

Press the **DOWN** button **twice** in rapid succession to move to the intermediate position.

When the system is in venetian blind mode, it is also possible to programme a reversing position. In this case, this command will be automatically executed following the intermediate position command.

CANOPY TENSION/REVERSE

The canopy tension/reversing position lies between the upper and lower limits of the sun protection system and can be freely selected. This function can be used to make the canopy of your sun protection system taut.

In the case of venetian blinds, the blind slats are turned.

To do so, press the **UP** button **twice** in rapid succession.

Settings menu

WINTER ON/OFF

If the WINTER ON function has been activated, no automatic and manual control commands are executed.

WIND CONTROL

The WIND threshold value is pre-set to 04.

The wind threshold value can be set to values ranging between 01 (slight winds) and 11 (strong winds).

The existing wind setting and the new setting to be made are shown on the display. The field for the new wind setting will flash.

If the pre-set wind threshold value has not been reached for a period of 15 minutes, control commands may be executed again.

TEST mode

Press and hold the **OK** button (for approx. 5 seconds) to activate the TEST mode.

The TEST mode is used to check whether the sensory equipment is functioning properly. When the test mode is active, the word TEST will appear on the display.

In the TEST mode the pre-set delay times are shortened

Language selection (GERMAN)

Your national language can be selected via this menu option.

SUMMER/WINTER

SUMMER/WINTER refers to the automatic clock adjustment for daylight saving changes. The factory setting is ON; the AeroTec timer adjusts the clock automatically.

Function

Function menu

This mode is intended for qualified staff only. (Only displayed when the operating device has been removed.)

In the FUNCTION menu the following functions can be set:

- AWNING/VENETIAN BLIND (select curtain/canopy)
- DRIVE/GROUP CONTROLLER
- OPERATING TIME
- EXTERNAL SWITCH/ON/OFF
- ALARM SIGNAL ON/OFF
- SWITCHING TIME/BLOCKING TIME
- EXPERT MODE ON/OFF
- INITIAL OPERATION (for servicing purposes)
- RELAY (for servicing purposes)
- TOTAL RUNNING TIME (for servicing purposes)

DRIVE CONTROLLER

The drive is directly connected to the AeroTec timer.

GROUP CONTROLLER

The AeroTec timer operates the selected group

EXTERNAL OFF/EXTERNAL ON/EXTERNAL SWITCH

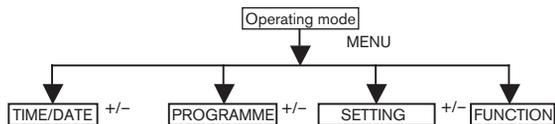
EXTERNAL OFF	Group inputs are always switched off.
EXTERNAL ON	Group inputs are always switched on.
EXTERNAL SWITCH	In AUTO mode the group inputs are switched on; In MANUAL mode the group inputs are switched off.

EXPERT MODE

In order to modify delay times in the SETTINGS menu the EXPERT MODE must be ON.

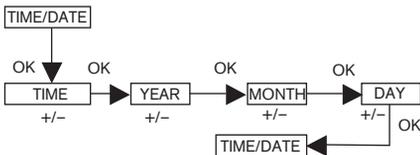
Programming

Operating mode/overview of menu



1. Press the **MENU** button until TIME/DATE will appear.
2. To go to further menu levels, press the +/- buttons.
3. Press the **MENU** button to switch to operating mode.

TIME/DATE (Date and time settings)

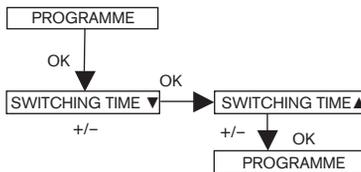


1. Press the **MENU** button until TIME/DATE will appear.
2. Press **OK** to move to the menu level TIME.
3. Now set the current time using the +/- buttons.
4. When the time is set correctly, confirm by pressing **OK**.
5. Repeat the above procedure for the settings YEAR, MONTH and DAY TIME/DATE will appear.
6. Press the **MENU** button to return to operating mode.

Programming

PROGRAMME

Switching time ▲ ▼ or blocking time ▲ ▼



1. Press the **MENU** button.
2. To select the PROGRAMME menu press the + button until PROGRAMME appears.

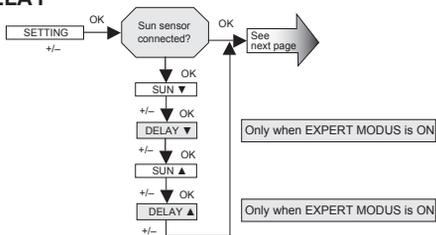
Note: The FUNCTION menu can be used to choose between SWITCHING TIME and BLOCKING TIME.

3. Press **OK** to confirm. SWITCHING TIME ▼ / BLOCKING TIME ▼ will appear.
4. Now set the desired SWITCHING TIME ▼ / BLOCKING TIME ▼ and the SWITCHING TIME ▼ / BLOCKING TIME ▲ using the +/- buttons.
5. Press **OK** to confirm.
6. Press the **MENU** button to return to operating mode.

Note: If the EXPERT MODE is ON, the display will show SWITCHING TIMES instead of BLOCKING TIMES.

Programming

SETTING SUN, DELAY



1. Press the **MENU** button.
2. To select the SETTING menu press the **+** button until SETTING will appear.
3. Press **OK** to confirm.

Note: This dialogue field will only appear if a sun sensor is connected

SUN ▼ will appear.

4. Use the +/- button to adjust the sunlight setting.
(The two left-hand figures on the display show the current sunlight setting)

Note: The dialogue field only displays DELAY ▼ and DELAY ▲ when the EXPERT MODE has been set to ON via the functions menu.

5. Press **OK** to confirm selection. DELAY ▼ will appear.
6. Use the +/- button to adjust the delay time.
7. Press **OK** to confirm.

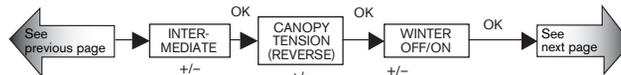
To set SUNp and DELAY ▲, proceed as described above for SUN ▼ and DELAY ▼.

The SUN/DELAY function is now set.

For further programming options in the SETTING menu refer to the next section.

Programming

SETTING INTERMEDIATE POSITION, CANOPY TENSION/REVERSE, WINTER OFF/ON



You have confirmed the menu options SUN ▼ (DELAY ▼).
INTERMEDIATE POSITION will appear.

1. The switching time for the INTERMEDIATE POSITION can be set using the +/- buttons. The switching time can be set in a matter of seconds. Alternatively, you can move the shutter from the upper end limit into the INTERMEDIATE POSITION using the **DOWN** buttons.
2. Press **OK** to confirm. CANOPY TENSION/REVERSE will appear.
3. The switching time for the CANOPY TENSION /REVERSE position can be set using the +/- buttons. The switching time can be set in a few seconds. Alternatively, you can move the shutter from the lower end limit into the CANOPY TENSION/REVERSE position using the **UP** buttons.
4. Press **OK** to confirm. You have now confirmed the menu setting CANOPY TENSION /REVERSE. WINTER OFF/ON will appear.
5. Use the +/- button to switch the WINTER function on or off. Press **OK** to confirm your selection.

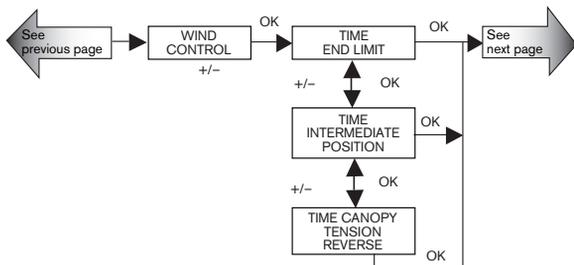
The WINTER OFF/ON function is now set.

For further programming options in the SETTING menu refer to the next section.

Programming

SETTING

WIND CONTROL, TIME END LIMIT, TIME INTERMEDIATE POSITION, TIME CANOPY TENSION/REVERSE



You have confirmed the menu option WINTER OFF/ON. WIND CONTROL will appear.

1. Use the +/- button to adjust the wind setting. (The two left-hand figures on the display show the current wind setting.)
2. Press **OK** to confirm. TIME END LIMIT will appear.
3. Use the +/- button to choose between TIME END LIMIT, TIME INTERMEDIATE POSITION, TIME CANOPY TENSION/REVERSE.
4. Press **OK** to confirm your selection.

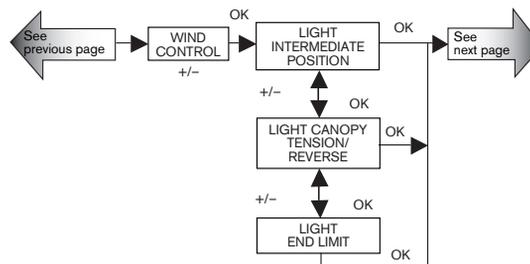
The TIME END LIMIT function is now set.

For further programming options in the SETTING menu refer to the next section.

Programming

SETTING

WIND CONTROL, LIGHT END LIMIT, LIGHT INTERMEDIATE POSITION, LIGHT CANOPY TENSION/REVERSE



You have confirmed the menu option TIME END LIMIT. WIND CONTROL will appear.

1. Use the +/- button to alter the wind setting. (The two left-hand figures on the display show the current wind setting.)
2. Press **OK** to confirm your selection. LIGHT INTERMEDIATE POSITION will appear.
3. Use the +/- button to choose between LIGHT INTERMEDIATE POSITION, LIGHT CANOPY TENSION/REVERSE, LIGHT END LIMIT.
4. Press **OK** to confirm your selection.

The LIGHT INTERMEDIATE POSITION function is now set.

For further programming options in the SETTING menu refer to the next section.

Programming

SETTING

TEST MODE, GERMAN, SUMMER/WINTER

(Language selection, automatic clock adjustment for daylight saving changes summer/winter time changeover)



You have confirmed the menu option LIGHT INTERMEDIATE POSITION. TEST MODE ON/OFF will appear.

1. Use the +/- button to activate or deactivate (ON/OFF) the TEST MODE.
2. Press **OK** to confirm. GERMAN will appear.

Note: To exit the TEST MODE press the OK button to return to the operating mode

3. Use the +/- button to select the desired national language.
4. Press **OK** to confirm your language selection.
5. Use the +/- button to switch the SUMMER/WINTER function on or off.
6. Press **OK** to confirm your selection. SETTING will appear.
7. Press the **MENU** button to return to operating mode.

Programming

FUNCTION (Only if the operating device has been removed. Only by qualified staff)

AWNING/VENETIAN BLIND, DRIVE CONTROLLER/GROUP CONTROLLER, OPERATING TIME

(Curtain/canopy selection Awning/venetian blind selection, drive controller/group controller selection, awning/venetian blind operating time)



1. Press the **MENU** button.
2. To select the FUNCTION menu press the + button until FUNCTION appears.
3. Press **OK** to confirm. AWNING/VENETIAN BLIND will appear.
4. Use the +/- button to choose between awning/venetian blind.
5. Press **OK** to confirm. DRIVE CONTROLLER/GROUP CONTROLLER will appear.
6. Use the +/- button to select the desired control device (DRIVE CONTROLLER/GROUP CONTROLLER).
7. Press **OK** to confirm. OPERATING TIME will appear.
8. Use the +/- button to set the required operating time. (Pre-setting: 120 seconds for awnings and 180 seconds for venetian blinds).
9. Press **OK** to confirm.

The OPERATING TIME function is now set.

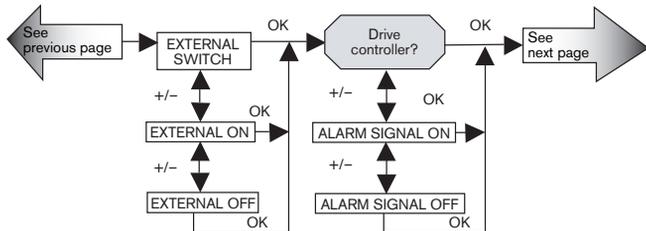
For further programming options in the FUNCTION menu refer to the next section.

Programming

**FUNCTION (Only if the operating device has been removed.
Only by qualified staff)**

EXTERNAL ON/OFF/SWITCH, ALARM SIGNAL ON/OFF

(Processing external signals, processing alarm signals)



You have confirmed the OPERATING TIME function.

EXTERNAL SWITCH will appear.

(EXTERNAL SWITCH/ON/ OFF refers to external control signals.

The factory setting is EXTERNAL SWITCH)

1. Use the **+/-** button to select the desired setting for the control inputs.
2. Press **OK** to confirm your selection.

Note: The following dialogue field will only be displayed when DRIVE CONTROLLER has been selected.

ALARM SIGNAL ON will appear. (ALARM SIGNAL ON is the factory setting)

3. Use the **+/-** button to set ALARM SIGNAL to ON or OFF as desired.
4. Press **OK** to confirm.

The ALARM SIGNAL ON/OFF function is now set.

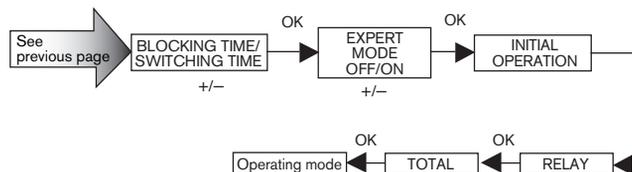
For further programming options in the FUNCTION menu refer to the next section.

Programming

**FUNCTION (Only if the operating device has been removed.
Only by qualified staff)**

INITIAL OPERATION, RELAY, TOTAL RUNNING TIME

(Date of initial operation, relay switching rate, total running time)



You have confirmed the function ALARM SIGNAL ON/OFF.

BLOCKING TIME/SWITCHING TIME will appear

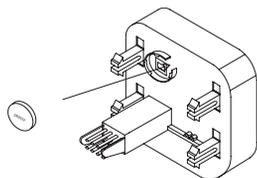
1. Use the **+/-** button to choose between BLOCKING TIME/SWITCHING TIME.
2. Press **OK** to confirm your selection. EXPERT MODE OFF/ON will appear.
3. Use the **+/-** button to make the desired setting. INITIAL OPERATION will appear.
4. Press **OK** to confirm. RELAY will appear. (RELAY refers to the relay switching rate.)
5. Press **OK** to confirm. TOTAL RUNNING TIME will appear. (TOTAL RUNNING TIME refers to the total switching time of the relays.)
6. Press **OK** to confirm.
7. Press the **MENU** button to return to operating mode.

Technical data / Changing the batteries / Cleaning

Technical data

Nominal voltage	230-240 V AC / 50-60 Hz
Switched current	5 A / 250 V AC for $\cos \varphi = 1$
Battery type	1 x CR 2032
System of protection	IP 20
Protection class	II
The protection class II is guaranteed only after a correct installation.	
Permissible ambient temperature	0 bis +55 °C
Type of installation	Concealed: Ø 58 mm wall-mounted Exposed: in appropriate exposed casing

Changing the batteries



1. Disconnect the operating device.
2. Remove the battery.
3. Insert the new battery properly.
4. Reset the time.

Note: The pre-set values remain stored.

Cleaning

Clean the device with a damp cloth only. Do not use a cleaning agent as doing so may damage the plastic.

Troubleshooting / General declaration of conformity

Troubleshooting

Problem	Cause	Remedy
Drive is not functioning.	Faulty connection.	Check connection.
Drive moves in the wrong direction.	Faulty connection.	Exchange ▲ and ▼ wires in the power supply unit.
Automatic control commands are not carried out.	The sliding switch is set to manual mode.	Set the sliding switch to automatic mode.
The pre-set sunlight and wind parameters cannot be changed or are not displayed.	No sensory equipment is connected or the connecting cable is faulty.	Check the sensor equipment, connecting cable and connector plug.
Curtain/canopy does not move into the end limit position.	1. Operating time is too short. 2. End limit position is not set.	1. Adjust operating time accordingly via the functions menu. 2. Set end limit position in the LIGHT END LIMIT or TIME END LIMIT setting menu.
Wind alarm signal is displayed although there is no wind.	1. Line break 2. Gusts of wind	1. Check cable and replace if necessary. 2. Wait approx. 15 minutes.

General declaration of conformity:

The company elero GmbH hereby declares that the AeroTec timer complies with the basic requirements and other relevant regulations of the EC Directive 1999/5/EG.

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