BREL Vestamatic GROUP

SCAN ME

INSTALLATION AND OPERATING INSTRUCTIONS
UNI 12/22

UNI 22

This manual is suitable for the following products:

- Uni 12 (01093510)
- Uni 22 (01093310)

Documentnumber: 84300901 B1

Shade control unit for 1 or 2 zones in combination with wind, lux, rain/ frost and temperature sensors.

Read the manual before starting the installation.
Failure to follow the instructions may result in defects that are not covered by the warranty. Errors and technical changes excepted.

Manual EN

Manual NL

Vestamatic International GmbH | Am Tannenbaum 2 | 41066 Mönchengladbach | Germany
E-Mail: info@vestamatic.com | www.vestamatic.com

CONTENT

SAFETY INSTRUCTIONS

GENERAL SAFETY INFORMATION

These safety instructions are an integral part of the product and must be read and fully understood before installation, connection, commissioning and operation.

- The UNI 12/22 controller is intended exclusively for its intended use: automatic and manual control of sun shading systems (e.g. awnings, venetian blinds, roller shutters, skylights) in accordance with this manual.
- Installation, electrical connection, basic configuration and commissioning may only be carried out by a qualified electrician.
- All applicable laws, standards and regulations must be observed, in particular DIN VDE 0100/0700, local utility regulations and accident prevention regulations.
- The controller must be inspected for damage before installation. If damage is detected, the device must not be put into operation.
- Any modification or alteration of the controller is prohibited and will result in the loss of all warranty and liability claims.
- The operator is responsible for ensuring that these safety instructions are made available to all subsequent users.

SAFETY WARNINGS

ELECTRICAL HAZARDS
DANGER – Risk of fatal electric shock. Disconnect the mains voltage completely before installation and before working on the device.

WIND, RAIN AND FROST SAFETY FUNCTIONS | IMPORTANT – Automatic protective functions at Wind , Regen und Frost

HAZARDS FROM MOVING SUN SHADING SYSTEMS | WARNING – Risk of injury due to crushing, shear points or uncontrolled movements.

NOTE
The complete safety instructions can be found at:
www.vestamatic.com/safety

SUPPORT/CONTACT

Vestamatic International GmbH
Am Tannenbaum 2 | 41066 Mönchengladbach
E-Mail: info@vestamatic.com

VARIANTS

- **UNI 12**
  Shade control unit for 1 zones

- **UNI 22**
  Shade control unit for 2 zones

TECHNICAL DATA

SHORT DESCRIPTION

- Control unit for 1-2 sun protection zones with integrated control and power section.
- Inclusion of sensors for wind, rain/frost, LUX and temperature.

PARAMETER	VALUE
Power supply	230VAC, 50 Hz
Impulse voltage withstand level	2,5 kV
Rated power	6 W
Fuses Uni 22 Uni 12	0,05 A /T (control) 6,3 A /T (motor) 4 A /T (motor)
Output Maximum load Align switching time	floating contact 250VAC, 50 Hz, 4A, cos φ ≥ 0,8 ind. 30VDC, 5A (UNI 22), 4A (UNI 12) 3 – 180 seconds
The total operating power of the connected motor must not exceed 920 W (UNI 12) and 1400 W (UNI 22).	

TECHNICAL DATA

PARAMETER	VALUE
Software class	A
Operating temperature	0 °C (32 °F) to +40 °C (104 °F)
IP class	IP 30
Degree of contamination	2
Dimensions (L × W × H)	184 × 100 × 56 mm
Colour information	signal white (similar to RAL 9016)
Conformität	CE

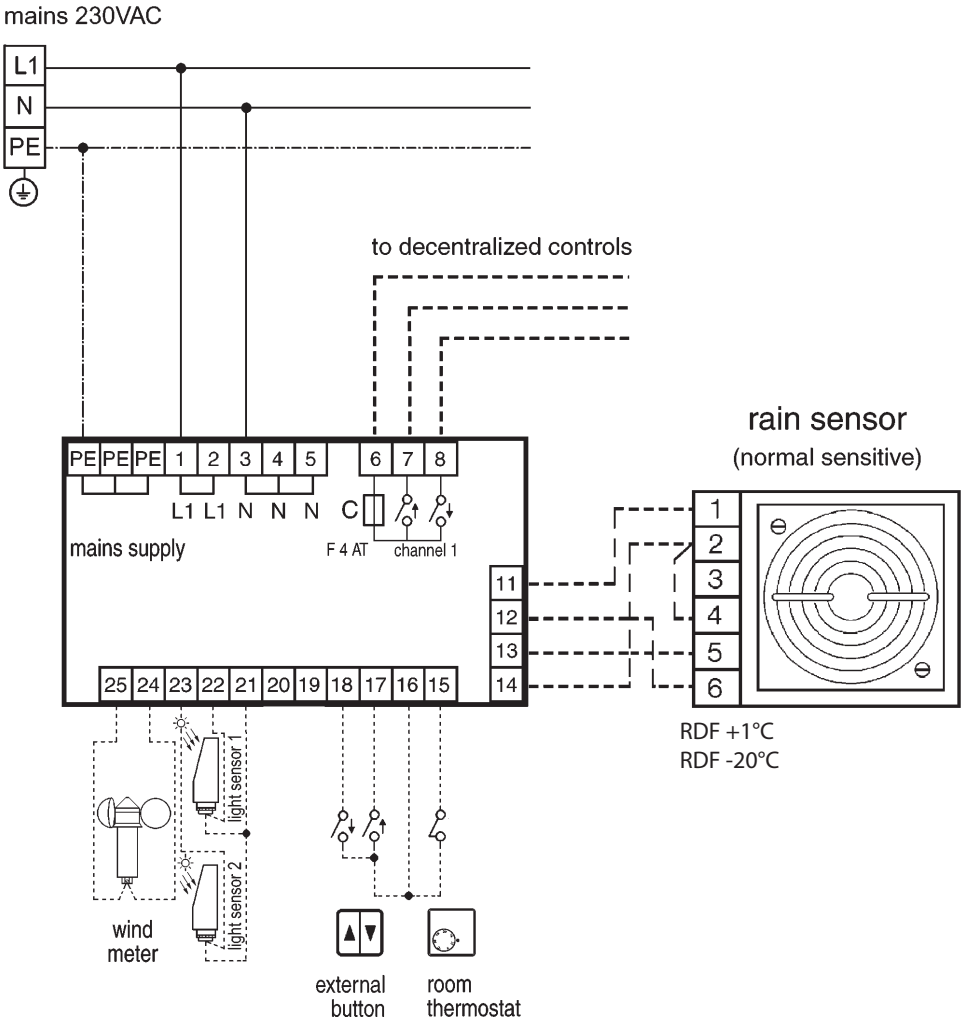
INSTALLATION / WIRING DIAGRAM

INSTRUCTIONS FOR ELECTRICIANS

- 1: Disconnect the mains power supply.
- 2: Remove the two screws on the top of the controller and carefully lift off the upper housing.
- 3: Disconnect the connection cable from the base plate.
- 4: Route the connection cables through the base housing and mount the base housing to the wall.
- 5: If the cable entries are located in the wall, use the pre-punched cable entry in the rear panel.
- 6: Connect the mains supply and external connections according to the wiring diagram.
- 7: The output is potential-free (important when controlling decentralized and centralized control systems).
- 8: If the motor (230 VAC, 50 Hz) is to be controlled directly, a bridge must be installed between terminals 2 and 6.
- 9: If a light sensor LS30 is installed with the controller, a 1.8 kΩ resistor must be connected between terminals 21 and 22. In addition, set the number of light sensors to 1 in the basic settings.
- 10: nsert the connection cable into the socket on the base plate and place the upper housing onto the lower housing.
- 11: Switch on the mains power supply.
- 12: The LED indicators on the front of the device will flash several times.
- 13: Check the correct operation of all connected sensors.
- 14: Check the correct operation and direction of travel of all connected drives.
- 15: Make the required basic settings on the device.
- 16: Reinstall the device cover on the lower housing and tighten the two screws on the top of the housing securely.

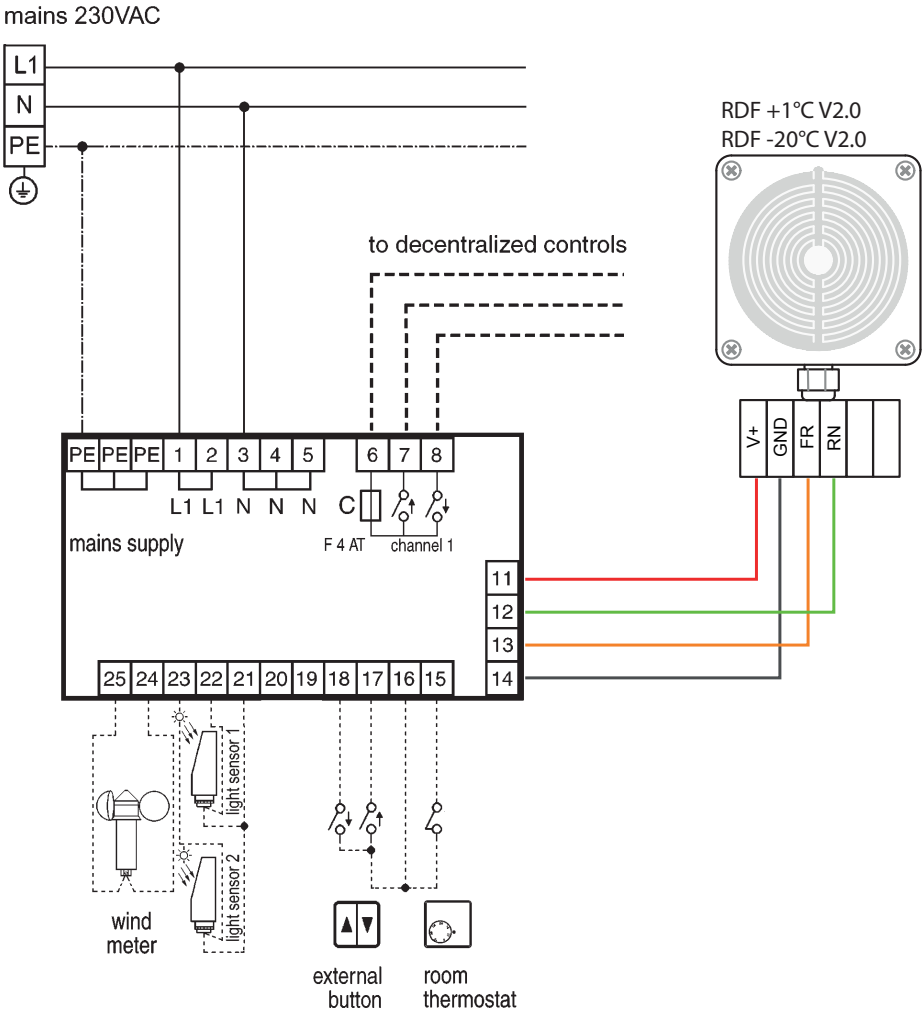
INSTALLATION / WIRING DIAGRAM

UNI 12 WIRING DIAGRAM TO DECENTRALIZED CONTROLS



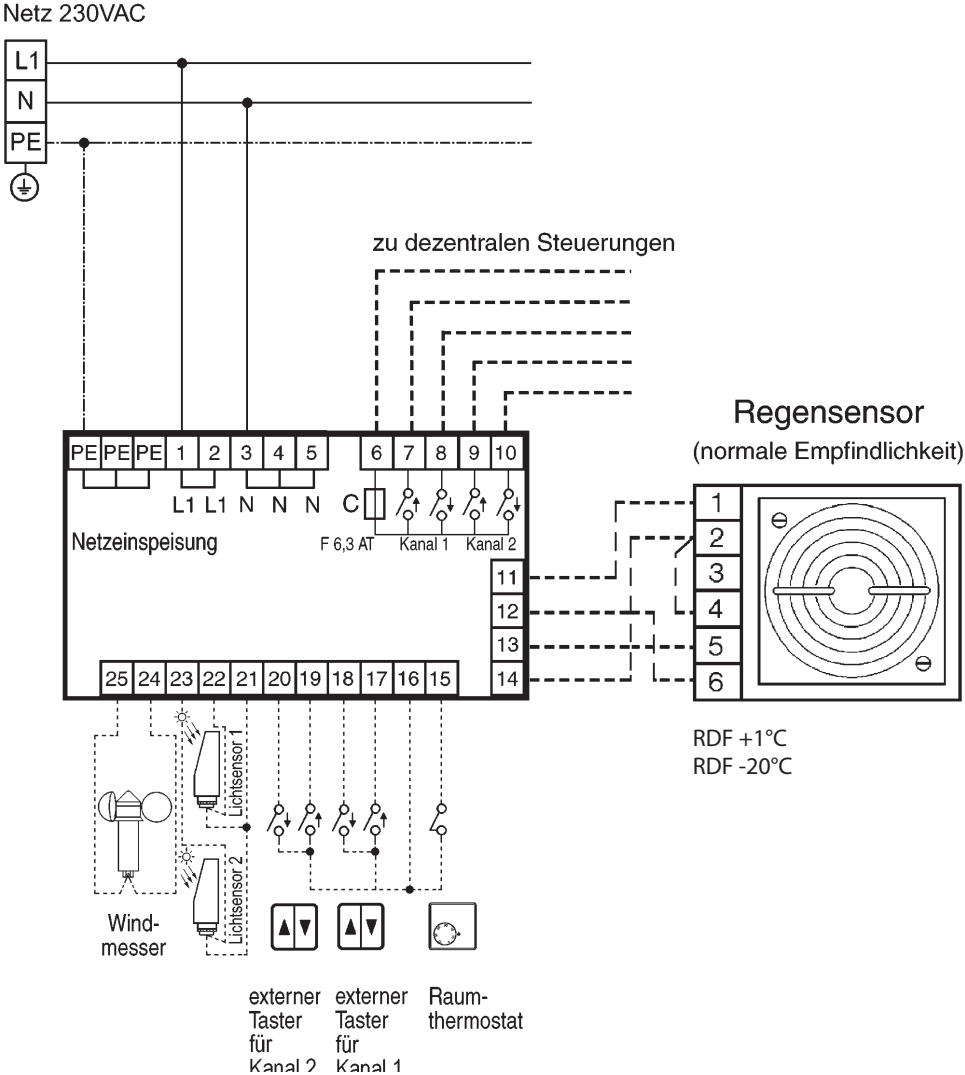
INSTALLATION / WIRING DIAGRAM

UNI 12 WIRING DIAGRAM TO DECENTRALIZED CONTROLS



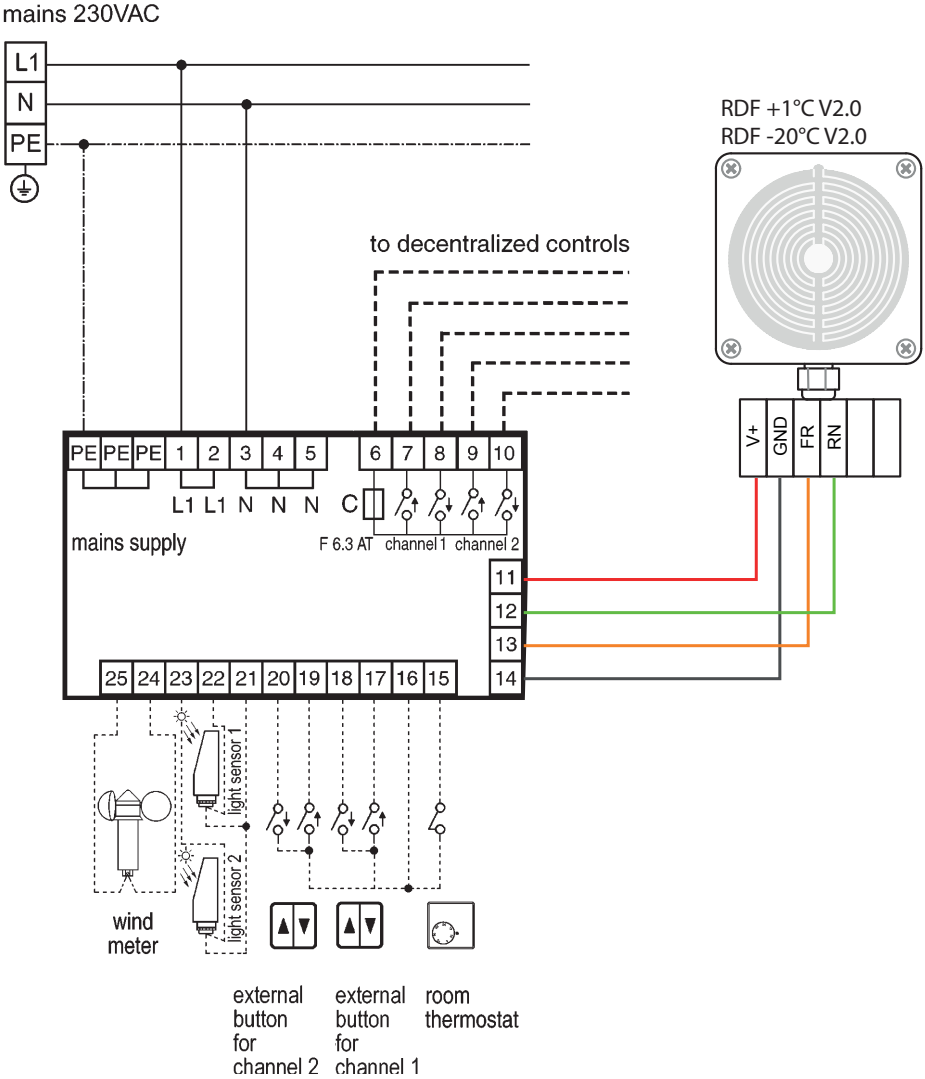
INSTALLATION / WIRING DIAGRAM

UNI 22 WIRING DIAGRAM TO DECENTRALIZED CONTROLS



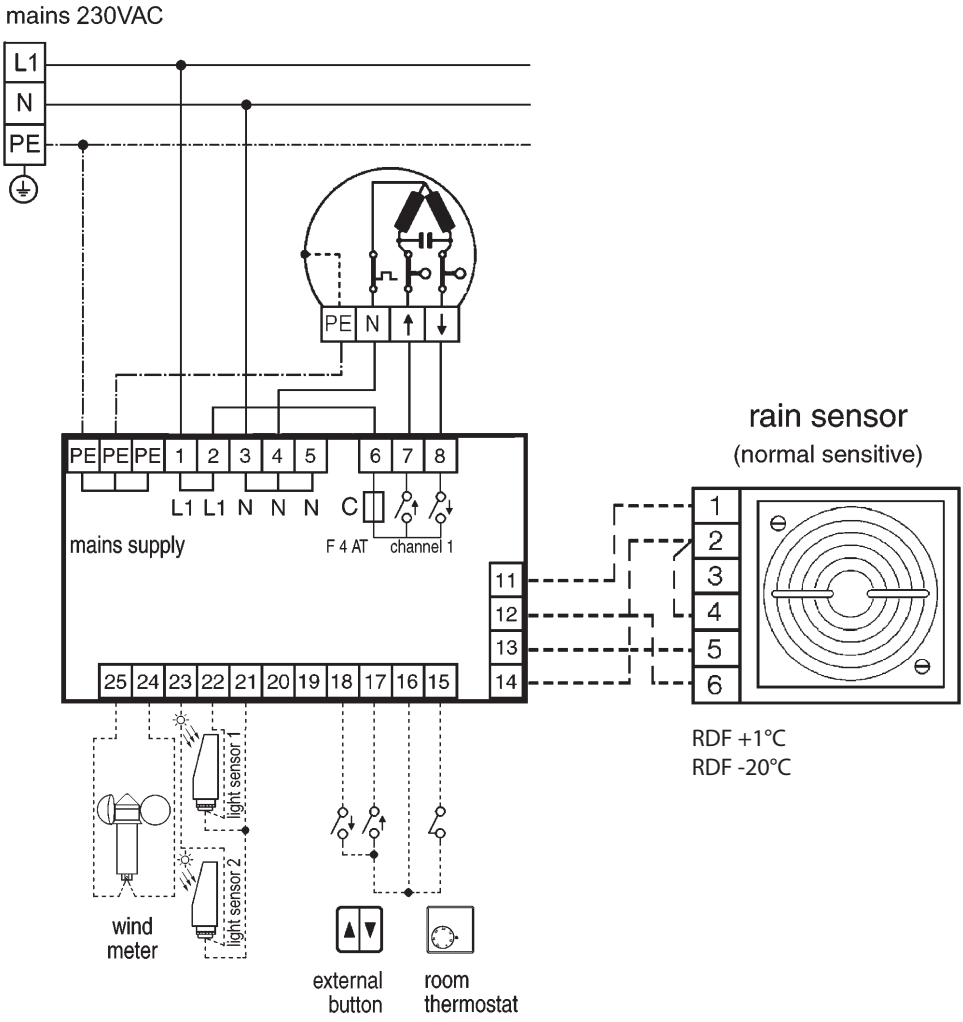
INSTALLATION / WIRING DIAGRAM

UNI 22 WIRING DIAGRAM TO DECENTRALIZED CONTROLS



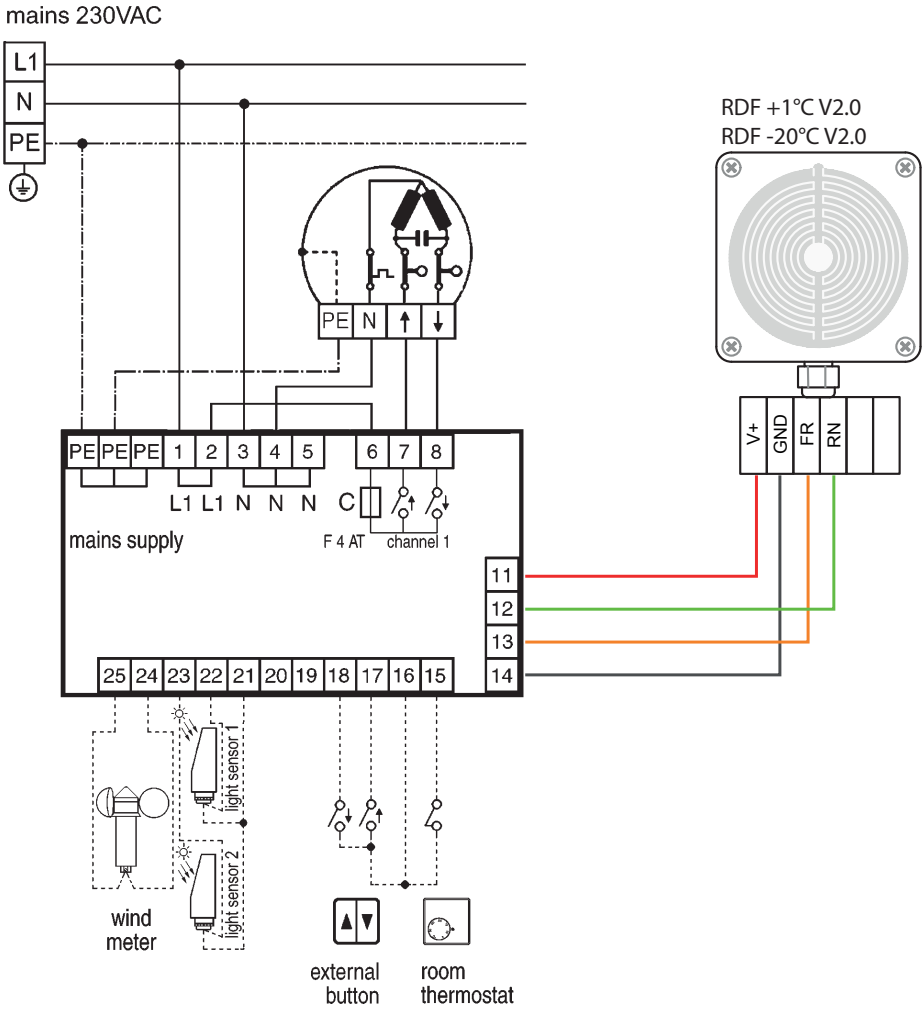
INSTALLATION / WIRING DIAGRAM

UNI 12 WIRING DIAGRAM WITH DIRECT MOTOR CONNECTION



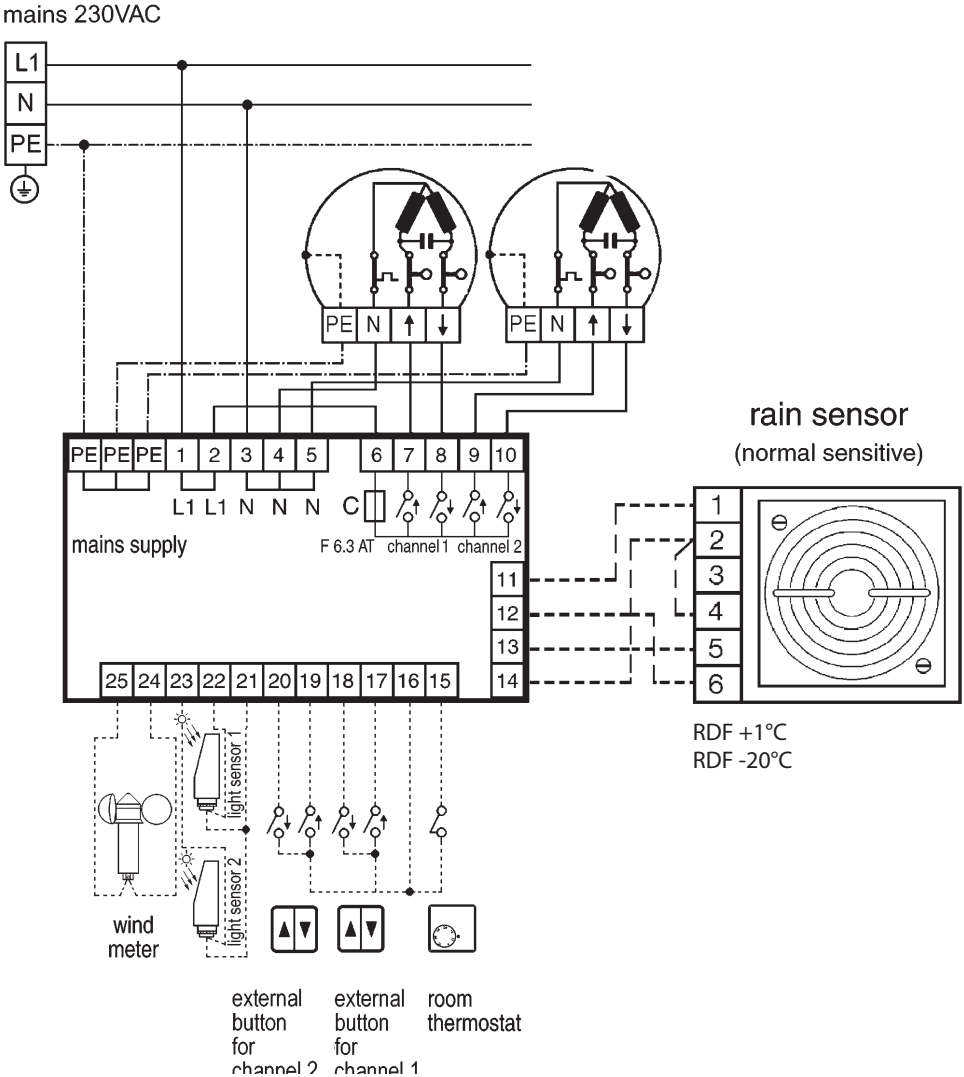
INSTALLATION / WIRING DIAGRAM

UNI 12 WIRING DIAGRAM WITH DIRECT MOTOR CONNECTION



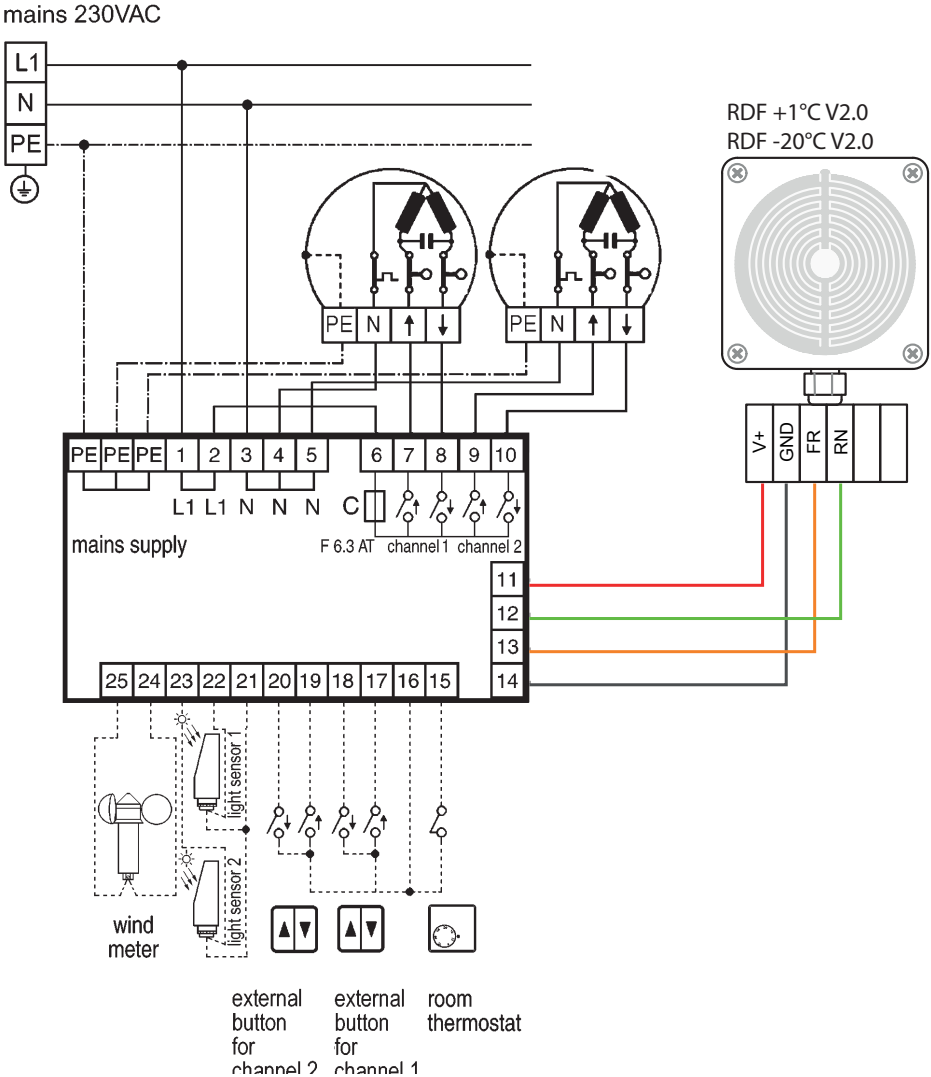
INSTALLATION / WIRING DIAGRAM

UNI 22 WIRING DIAGRAM WITH DIRECT MOTOR CONNECTION



INSTALLATION / WIRING DIAGRAM

UNI 22 WIRING DIAGRAM WITH DIRECT MOTOR CONNECTION

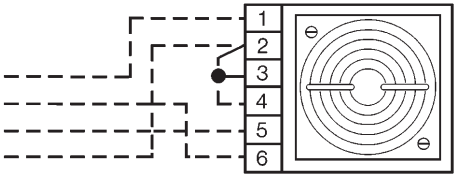


INSTALLATION / WIRING DIAGRAM

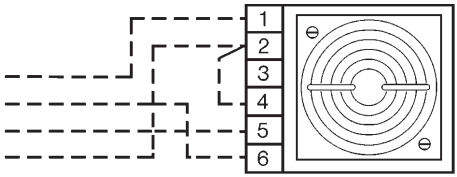
RAIN SENSOR SENSITIVITY SETTING

The sensitivity of the rain sensor is defined by the wiring at the sensor connection terminals. You can select between four sensitivity levels. Connect the rain sensor as follows to set the desired sensitivity level:

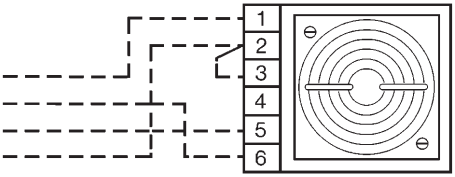
rain sensor low sensitive:



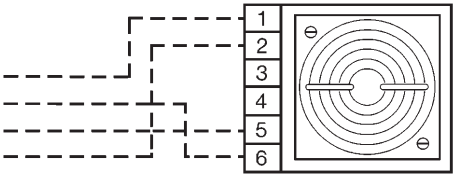
rain sensor normal sensitive:



rain sensor sensitive:



rain sensor high sensitive:



ACCESSORIES

THE FOLLOWING ACCESSORIES ARE AVAILABLE AS OPTIONAL EXTRAS FOR THE UNI 12/22 CONTROL UNIT:

Light sensor LS 30 Pro
(Art.-No. 01161210)

Wind meter WS XS Tube
(Art.-No. 01100410)

Wind meter WS Classic M
(Art.-No. 01100235)

Room thermostat
TE Indoor
(Art.-No. 01100271)

ACCESSORIES

THE FOLLOWING ACCESSORIES ARE AVAILABLE AS OPTIONAL EXTRAS FOR THE UNI 12/22 CONTROL UNIT:

Rain sensor RD +1 °C
(Art.-No. 010830)

Rain sensor RD -20°C
(Art.-No. 010825)

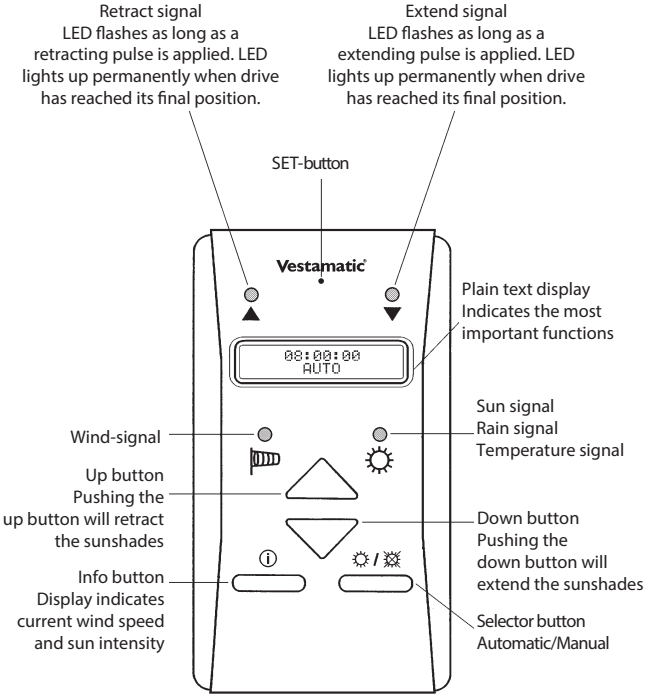
Rain sensor RD +1 °C V2.0
(Art.-No. 010831)

Rain sensor RD -20°C V2.0
(Art.-No. 010826)

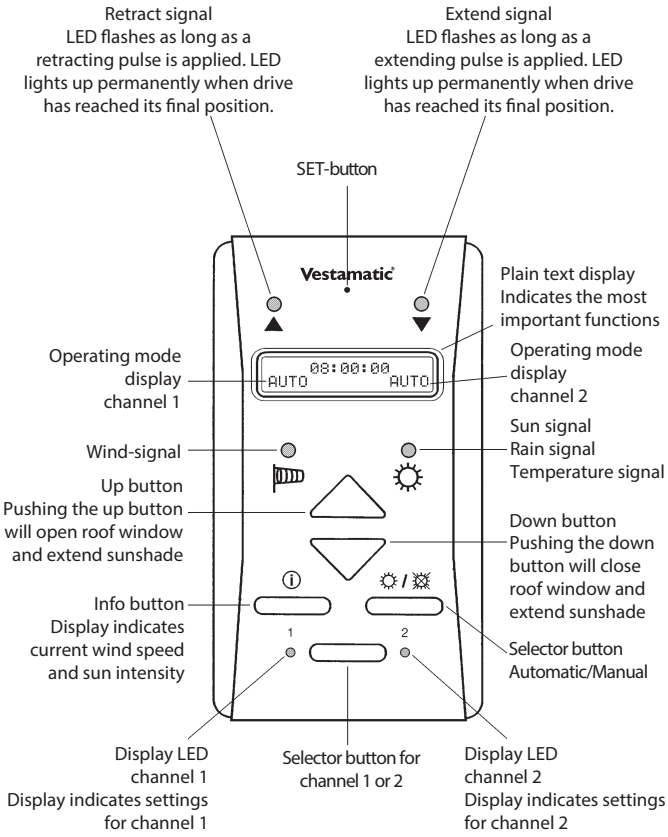
NOTE

It is possible to connect multiple UNI 12/22 controllers using a single wind sensor by wiring the wind sensor inputs of up to two devices in parallel (see wiring diagrams).

FUNCTIONAL DESCRIPTION



FUNCTIONAL DESCRIPTION

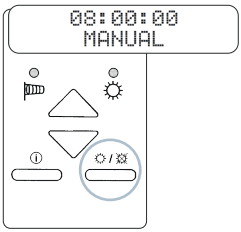


PROGRAMMING / FUNCTION

SETTING MANUAL OPERATION

UNI 12

Switch automatic/manual operation
Button Auto/manual x1

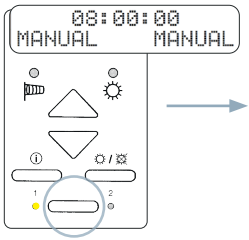


The display shows Hand
to indicate manual operation

SETTING MANUAL OPERATION

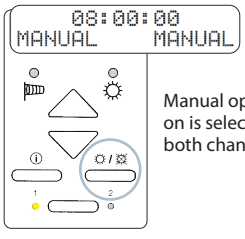
UNI 22

Select channel
x1(+)



The yellow LED of the
selected channel lights up

Switch automatic/manual operation
Button Auto/manual x1



Manual operation is selected for both channels

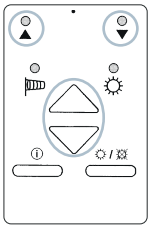
The display shows Hand
to indicate manual operation

PROGRAMMING / FUNCTION

EXTENDING OR RETRACTING THE SUN SHADING IN MANUAL OPERATION

UNI 12/22

Button UP/DOWN
x1



Press the opposite button to stop the movement.

If the motor runs to the end position, this is indicated by the LED lighting continuously.

The LED flashes to indicate the direction of movement.

WARNING

If the wind speed exceeds the set limit value, or if rain or frost is detected, the sun shading is retracted immediately. For safety reasons, extending the shading is then no longer possible.

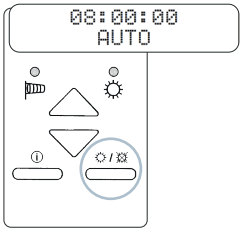
NOTE

If manual operation of the sun shading is required even during rain or frost, this safety function must be deactivated by a qualified installer.

SETTING AUTOMATIC OPERATION

UNI 12

Switch automatic/manual operation
Button Auto/manual x1

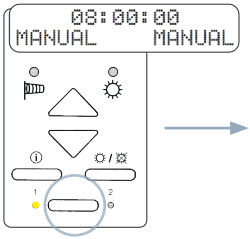


The display shows Auto to indicate automatic operation

SETTING AUTOMATIC OPERATION

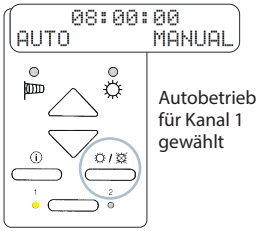
UNI 22

Select channel
x1(+)



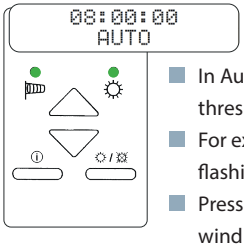
The yellow LED of the selected channel lights up

Switch automatic/manual operation
Button Auto/manual x1



Autobetrieb für Kanal 1 gewählt

The display shows Auto to indicate automatic operation



- In Automatic mode, the sun shading extends automatically when the required threshold values are reached.
- For extension, both green LEDs must be lit or flashing. If only one green LED is lit or flashing, the sun shading retracts.
- Pressing the opposite button can stop UP or DOWN movement at any time, unless the wind speed limit is exceeded or rain/frost is detected.

PROGRAMMING / FUNCTION

SETTING AUTOMATIC OPERATION

UNI 12/22

NOTE
After switching from manual to automatic operation, the last pending command will be executed.

SENSOR DESCRIPTION

LIGHT SENSOR:
Measures outdoor brightness in lux and controls the sun shading depending on sunlight intensity.

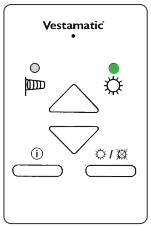
WIND SENSOR:
Measures wind speed in m/s or km/h. If the set limit value is exceeded, the sun shading retracts.

RAIN SENSOR:
Measures precipitation and outdoor temperature and automatically retracts the sun shading in the event of rain or frost.

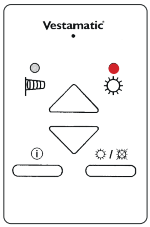
ROOM THERMOSTAT:
Measures indoor temperature and controls the sun shading according to the set room temperature.

The connected sensors operate in relation to one another and have different priorities. The current sensor states are shown by the sun and wind symbols on the display.

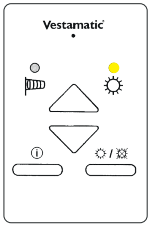
SUN LED DESCRIPTION



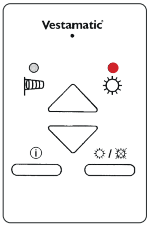
Green LED lights continuously:
The room thermostat setpoint temperature has been reached. The sun threshold has not been exceeded. No rain alarm, no frost message.



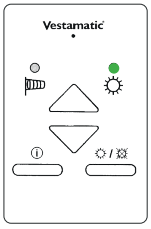
Red LED lights continuously:
The room thermostat setpoint temperature has not been reached, the sun threshold has been undershot, or a rain message is present.



Yellow LED lights continuously:
A frost message is present.



Red LED flashes:
The sun function is active. The sun shading retracts after the set response delay time, provided all other conditions are met.



Green LED lights continuously:
return delay active:
The set temperature has been undershot. The sun shading retracts after the configured return delay time.

NOTE
If rain or frost is detected, the sun shading retracts immediately. In this case, extension is no longer possible, even in manual operation.

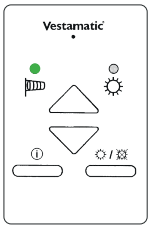
PROGRAMMING / FUNCTION

SUN LED SIGNAL

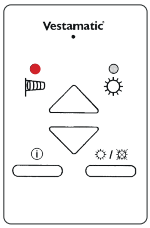
NOTE
If manual operation of the sun shading is also required in the event of rain or frost, please have the rain priority disabled by a qualified specialist (Menu: Basic settings).

NOTE
The sun shading will only extend or retract once the set response or return delay time has elapsed completely without interruption.

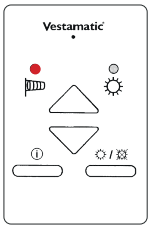
WIND SENSOR LED DESCRIPTION



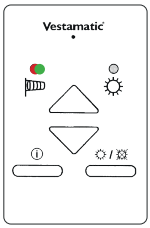
Green LED lights continuously:
No wind alarm.



Red LED lights continuously:
Wind alarm active. The sun shading retracts or the drive does not extend. Extension is not possible even if all other conditions are met.



Red LED flashes:
Return delay active. No wind alarm present. The sun shading can extend again after the set delay time, provided all other conditions are met.



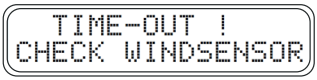
Green/Red LED flashes alternately:
No wind pulses detected for more than 48 hours. The wind sensor may be mechanically blocked or damaged.

NOTE
If the wind sensor is deselected (observe factory settings), the LED will always light green.

NOTE
If the wind speed limit for the sun shading is exceeded, the shading retracts immediately. Extension is no longer possible, even in manual operation.

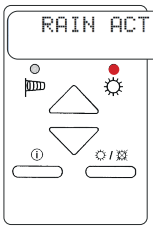
WIND SENSOR FAULT MESSAGE

If the wind wheel of the wind sensor does not move for 48 hours (in test mode approx. 1.5 minutes), the fault message appears on the display. At the same time, the wind sensor LED flashes red and green alternately (see above). The wind sensor may be defective.



PROGRAMMING / FUNCTION

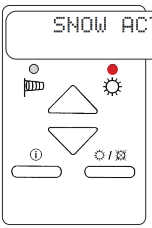
RAIN SENSOR



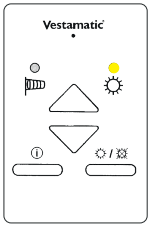
If rain is detected, the sunshade retracts. The display shows RAIN.

LED lights red

If the rain sensor is no longer active, the sunshade will extend again after the configured rain return delay time has elapsed.



If the outside temperature drops below +1 °C, the sunshade retracts without delay. The display shows SNOW.



If the sunshade is to be operated manually even during rain or frost, the above messages are not displayed in manual mode.

LED lights yellow

If the temperature rises, the sunshade will extend again after the configured frost and rain return delay time has elapsed.

ROOM THERMOSTAT

- A standard room thermostat (normally open contact) can be connected to the controller.
- This ensures that solar radiation first heats the room to the desired temperature before the sunshade extends.
- If the sunshade is not to be temperature-controlled, the temperature-dependent control must be deactivated (see time function).
- If the set room temperature is exceeded, the sunshade extends without delay, provided all other conditions are fulfilled.
- If the set room temperature falls below the threshold, the sunshade retracts after the configured temperature return delay time until the set room temperature is reached again.

NOTE

In manual mode, the room thermostat function is ignored. No automatic sunshade control takes place.

TIME FUNCTION

- A specific time can be set at which the sunshade automatically retracts or extends in automatic mode.
- The time function can be deactivated by pressing the arrow button until "--:--" is displayed (between 23:59 and 00:00).
- Additionally, a time window can be programmed during which the automatic control is deactivated. To activate this function, set the start and end of this time window to the desired values. The display shows the corresponding time.
- Deactivation is carried out by setting "--:--" in the display.

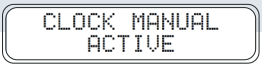
PROGRAMMING / FUNCTION

TIME FUNCTION

NOTE
Safety-related functions (rain, frost, wind) are also executed during the time function.

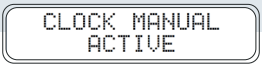
EXAMPLE 1
The sunshade is to extend at 08:00 and retract at 16:00. At this time, no automatic commands are to be executed. After 16:00, the sunshade is to extend depending on sunlight.

TIME FUNCTION SETTINGS:
Time control EXTEND: 16:00
Time control RETRACT: 08:00
Start of time window: 08:00
End of time window: 16:00



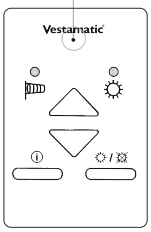
EXAMPLE 2
The sunshade is to extend at 08:00 and retract at 21:00. From 08:00 onward, the sunshade is to extend depending on sunlight.

TIME FUNCTION SETTINGS:
Time control EXTEND: 21:00
Time control RETRACT: --:--
Start of time window: 21:00
End of time window: 08:00



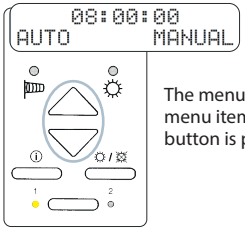
ADJUSTABLE VALUES AND TIMES

Menu selection: SET button x1(+) (use adjustment tool)



The display shows the respective value.

Set value: Arrow button UP/DOWN x1 (+)



Set the values as follows:

The menu is exited when the last menu item is reached or if no button is pressed for 20 seconds.

MENU ITEM	VALUE / TIME
Uhrzeit: Factory setting:	00:00 - 23:59 08:00
Hintergrundbeleuchtung: Factory setting:	0 – 100% 50%

PROGRAMMING / FUNCTION

ADJUSTABLE VALUES AND TIMES

MENU ITEM	VALUE / TIME
Contrast: Factory setting:	0 – 100% 50%
Time control RETRACT: Factory setting:	00:00 – 23:59; --:-- --:--
Time control EXTEND: Factory setting:	00:00 – 23:59; --:-- --:--
Start time – Automatic lock: Factory setting:	00:00 – 23:59; --:-- --:--
End time – Automatic lock: Factory setting:	00:00 – 23:59; --:-- --:--
Wind threshold **(with extended wind range):** Factory setting:	10 – 40 km/h 10 – 100 km/h 30 km/h
Wind reset delay: Factory setting:	2 – 20 Minutes 16 Minutes
Sun-dependent control: Factory setting:	EIN / AUS EIN
Sun threshold – Extend: Factory setting:	1 – 60 kLux 15 kLux
Sun response delay: Factory setting:	00:10 – 05:00 (Min:Sek) 02:30 (Min:Sek)
Sun threshold – Retract: Factory setting:	1 – 60 kLux 13 kLux
Sun reset delay: Factory setting:	2 – 40 Minutes 16 Minutes
Motor runtime: Factory setting:	1 – 180 Seconds 90 Seconds
Tilting time: Factory setting:	0 – 1,9 Seconds 0 Seconds
Temperature-dependent control: Factory setting:	EIN / AUS EIN
Temperature reset delay: Factory setting:	2 – 15 Minutes 5 Minutes
Rain reset delay: Factory setting:	1 – 10 Minutes 2 Minutes

PROGRAMMING / FUNCTION

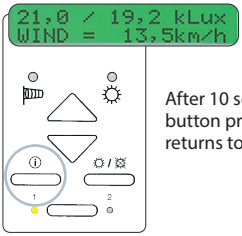
TILTING IMPULSE

- After completing the extend movement, the control unit can send a tilting impulse to the connected motor. In this case, the awning briefly moves in the opposite direction (retract) to tension the fabric.
- For venetian blinds, the automatic slat adjustment can be achieved using this tilting impulse.
- The tilting function is executed in both automatic and manual operation.

NOTE
If a tilting function is set, it will not be executed after a time-dependent control command.

INFO-BUTTON

Display of sensor measured values
Info-Button x1(+)



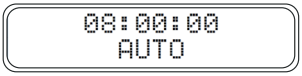
After 10 seconds (without any button press), the display returns to the current operating

Display shows values for:
Light = kLux
Wind = km/h

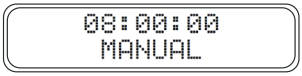
PLAIN TEXT DISPLAY

While the LEDs provide a brief overview of the current automatic status, the plain text display shows detailed information. All relevant messages for the selected channel are displayed alternately.

DISPLAY UNI 12

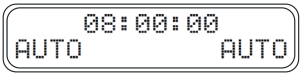


The UNI 12 is in automatic mode. All connected sensors are taken into account.



The UNI 12 is in manual mode. Only the wind threshold and, if applicable, the rain sensor are taken into account.

DISPLAY UNI 22

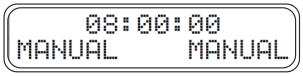


The UNI 22 is in automatic mode (Channel 1 and Channel 2). All connected sensors are taken into account.

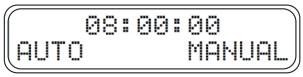
PROGRAMMING / FUNCTION

PLAIN TEXT DISPLAY

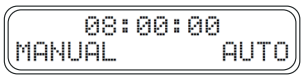
DISPLAY UNI 22



The UNI 22 is in manual mode (Channel 1 and Channel 2). Only the wind threshold and, if applicable, the rain sensor are taken into account.

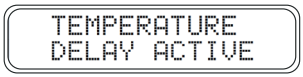


Channel 1 of the UNI 22 is in automatic mode, Channel 2 is in manual mode. For Channel 1, all sensors are taken into account; for Channel 2, only the wind threshold and, if applicable, the rain sensor are taken into account.

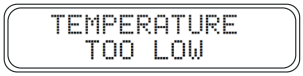


Channel 1 of the UNI 22 is in manual mode, Channel 2 is in automatic mode. For Channel 1, only the wind threshold and, if applicable, the rain sensor are taken into account; for Channel 2, all sensors are taken into account.

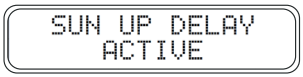
DISPLAY OF SENSOR VALUES IN AUTOMATIC MODE



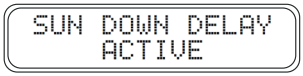
The temperature is below the value set on the room thermostat; the temperature return delay time has not yet elapsed.



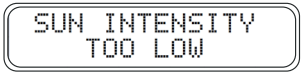
The temperature is below the value set on the room thermostat; the temperature return delay time has elapsed.



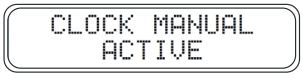
The set sun threshold has been exceeded; the sun response delay time has not yet elapsed.



The set sun threshold has fallen below the limit; the sun return delay time has not yet elapsed.

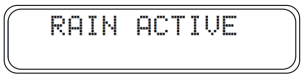


The set sun threshold has fallen below the limit.

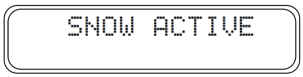


Time control is active; no automatic movement commands will be executed until the end of the set time window.

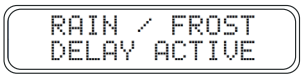
DISPLAY OF SENSOR VALUES IN AUTOMATIC AND MANUAL MODE



Rain is detected.



Frost is detected.



The rain or frost return delay time has not yet elapsed.

PROGRAMMING / FUNCTION

PLAIN TEXT DISPLAY

ERROR MESSAGES (CONTACT A QUALIFIED INSTALLER)

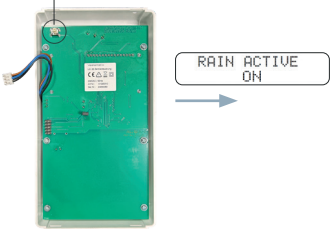
WINDSENSOR BAD CONNECTION !	The wind sensor connection or its wiring is faulty, no wind sensor is connected, or the wind sensor is not selected.
TIME-OUT ! CHECK WINDSENSOR	No wind signal has been detected for 48 hours. Please check the wind sensor by manually moving the wind cups. If the message remains or reappears, contact a qualified installer.
LIGHT-SENSOR 1 DEFECT !	The connection or wiring of light sensor 1 is faulty, or no sensor is connected.
LIGHT-SENSOR 2 DEFECT !	The connection or wiring of light sensor 2 is faulty, or no sensor is connected.

PROGRAMMING / BASIC SETTINGS

NOTE
The following settings must be carried out by a qualified installer.

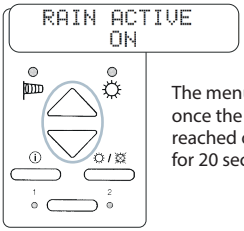
The button for activating the settings menu is located on the rear side of the upper housing.
To access it, loosen the two screws on the top of the controller and carefully lift off the upper housing.

Menu selection: Basic settings
x1(+)



The display shows the corresponding value.

Adjusting value: arrow button
UP/DOWNx1 (+)



The menu will close automatically once the last menu item has been reached or if no button is pressed for 20 seconds.

Adjust the values as follows:

1. Test mode
2. Wind sensor
3. Extended wind range
4. Wind speed unit
5. Wind sensor type
6. Wind return delay
7. Number of light sensors
8. Assignment of light sensors to channels (UNI 22 only)
9. Latching after 2 seconds
10. Rain priority
11. Continuous run command
12. Continuous run command (second parameter)
13. Channel 2 for roof window (UNI 22 only)
14. Language selection

PROGRAMMING / BASIC SETTINGS

Menu item		Setting	Information
1.	**Test mode** Factory setting	ON/OFF OFF	All functions of the connected additional devices can be tested here. The preset delay times run 5 times faster. The wind sensor monitoring (48-hour alarm) is triggered after approx. 90 seconds.
2.	**Wind sensor** Factory setting	ON/OFF OFF	If no wind sensor is selected, the wind LED remains permanently green and the wind safety function is disabled. Menu items 3–6 are not displayed in this case.
3.	**Extended wind range** Factory setting	ON/OFF OFF	This menu item is only available if a wind sensor is selected. **OFF:** Wind limit adjustable from 10 to 40 km/h. **ON:** Wind limit adjustable from 10 to 100 km/h.
4.	**Wind speed unit** Factory setting	km/h / m/s km/h	This menu item is only available if a wind sensor is selected.
5.	**Wind sensor type** Factory setting:	**WM1** (Standard WS XS Tube) **WM2** (Sondertyp WS Classic M) WM 1	This menu item is only available if a wind sensor is selected.
6.	**Wind response delay** Factory setting	0 – 10 seconds 0 seconds	This menu item is only available if a wind sensor is selected. The wind limit must be exceeded for the set time before the shading system retracts.
7.	**Light sensors** Factory setting Uni 12 Factory setting Uni 22	1/2 1 2	Set the number of connected light sensors.
8.	**Sensor assignment** Factory setting	A / B B	(UNI 22 only with 2 light sensors) **A:** For both channels, the higher value of the two measured brightness levels is used. **B:** The values measured by light sensor 1 apply to channel 1; the values measured by light sensor 2 apply to channel 2.
9.	**Latching after 2 seconds** Factory setting	ON/OFF OFF	**OFF:** After briefly pressing the UP or DOWN button, the drive only moves while the button is pressed. **ON:** If the UP or DOWN button is pressed for more than 2 seconds, the drive continues automatically to the end position. If the button is pressed for less than 2 seconds, the drive only moves while the button is held. This allows precise positioning and adjustment of the slat angle (for venetian blinds).

PROGRAMMING / BASIC SETTINGS

Menu item		Setting	Information
10.	**Rain priority** Factory setting	ON/OFF OFF	**OFF:** Rain and frost safety functions are disabled in manual mode. **ON:** Rain and frost safety functions remain active in manual mode.
11.	**Continuous UP command** Factory setting	ON/OFF OFF	**OFF:** A continuous signal at the external push-button input triggers an UP command for the set motor run time. **ON:** A continuous signal at the external push-button input triggers a continuous UP command.
12.	**Continuous DOWN command** Factory setting	ON/OFF OFF	OFF: A continuous signal at the external push-button input triggers a DOWN command for the set motor run time. **ON:** A continuous signal at the external push-button input triggers a continuous DOWN command.
13.	**Channel 2 for skylight** Factory setting	ON/OFF OFF	This menu item is available only on UNI 22. **OFF:** The UP and DOWN buttons operate normally for channel 2. **ON:** The UP and DOWN buttons are reversed for channel 2.
14.	**Language selection** Factory setting	EN / NL / DE / FR DE	Four languages can be selected.

NOTE
If you have used test mode, deactivate it after completing the test. Continuous operation of the UNI 12/22 in test mode is not permitted.

MAINTENANCE / WARRANTY

Principally, the General Terms and Conditions of the manufacturer, Vestamatic International GmbH apply. The terms and conditions are part of the sales doc-uments and handed over to the operator upon delivery. Liability claims for personal or material damages are excluded when they can be at tri buted to one or more of the following causes:

- Unintended use of the product.
- Opening of the product by the customer.
- Improper installation, commissioning, or operation of the product.
- Non-compliance with the specifications.
- Non-observance of the safety provisions and instructions of the Oper-ating Instructions.
- Operation of the product with improperly installed connections, defec-tive safety devices or improperly installed safeguards.
- Modifications to the product.

The product is maintenance-free.