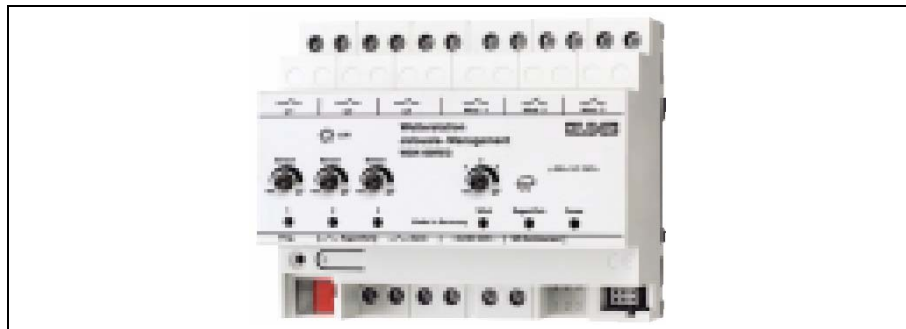


Operating Instructions Weather station



1. Safety Warnings



Attention

- Electrical equipment must be installed and fitted by qualified electricians only and in strict observance of the relevant accident prevention regulations.
- Failure to observe any of the installation instructions may result in fire and other hazards.
- The terminal block for connection of the combination sensor must be plugged on before the mains voltage is applied and during operation in order to protect the digital input against accidental contact with live wires. Risk of irreparable damage to the device!

2. Function

In conjunction with the digital combination sensor WS10 KS and the power supply unit WSSV10, the weather station WSK100 REG measures brightness, wind intensity and rain.

Based on brightness and wind intensity, the station controls a connected shutter control system independently for the east, south and west sides of a house.

The precipitation detect function can, for instance, be used for closing skylights when it rains.

3. Features

- Independent outputs for the shutters of the east, south and west facade of a house
- Separately adjustable shading function for the east, south and west facade
- Presetable common limit value for the wind alarm for the three house facades
- Precipitation detect function with switched output, e.g. for the control of skylights
- Standard shutter moving time of 2.5 minutes in sun protection mode can be shortened independently for each facade
- Monitoring of combination sensor connection cable with alarm function and message display.

4. Installation



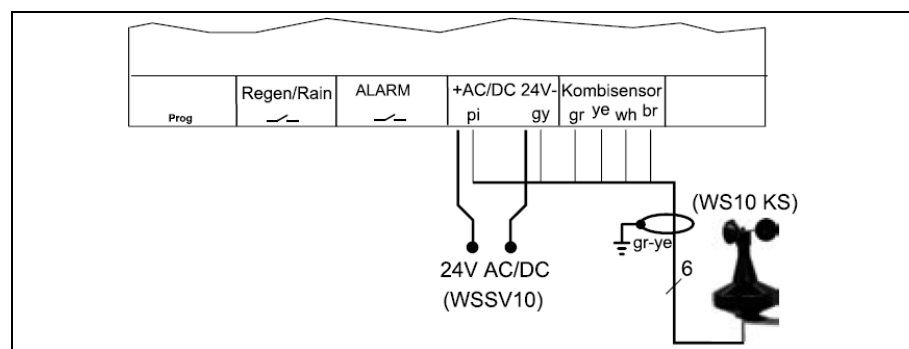
The device is snap-fastened on a 35 x 7.5 mm rail as per DIN EN 50022.

Important

The terminal block for connection of the combination sensor must be plugged on before the mains voltage is applied and during operation in order to protect the digital input against accidental contact with live wires. Risk of irreparable damage to the device.

For operation, the weather station needs an external 24 V power supply unit (WSSV10). After switching on the power supply, the green "Power" LED (10) is lit up.

Combination sensor wiring diagramm



4.1. Combination sensor connection

The power supply is connected to the screw terminals +AC/DC 24V -.

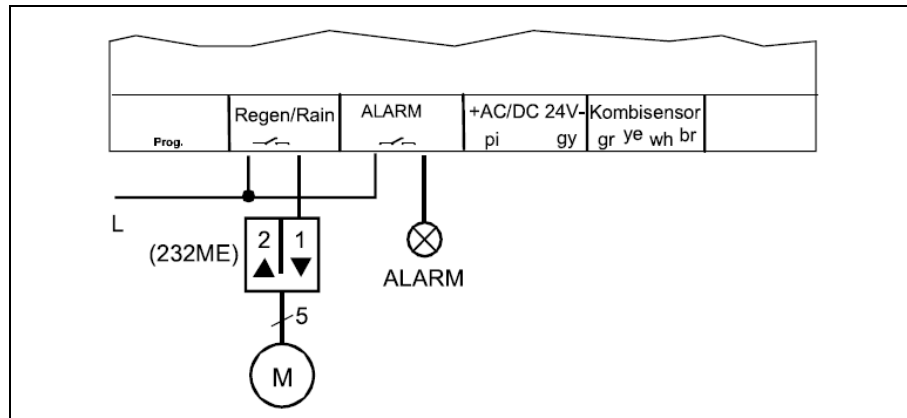
The external voltage of 24 V supplies also the heating of the combination sensor via the pink + (pi) and grey - (gy) wires.

The data lines of the combination sensor are connected by means of the 4-pole terminal block WAGO, type 252-104 supplied with the combination sensor. Observe the colour code when connecting the terminal block.

From left to right: green (gr), yellow (ye), white (wh), brown (br)

If possible, connect the green-yellow wire of the cable (shield) to ground potential. If this is not possible, the shield must remain unconnected.

Rain detector wiring diagramm

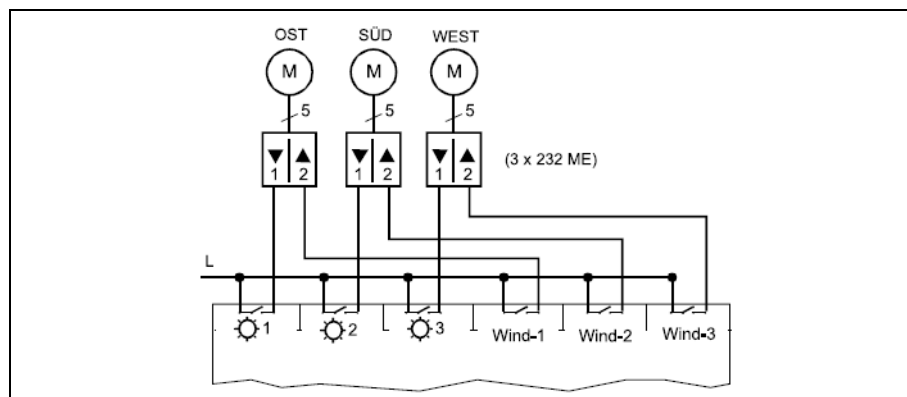


4.2. Rain detector connection

Via a switched phase conductor (L), the relay output “Regen/Rain” can control the extension input (terminal 1 ▼) of a motor control insert 232 ME, for instance, for closing a skylight when it rains.

The relay output “Alarm” can be used, for instance, to visualize an alarm condition by means of a signal lamp (see chapter “Alarm function”)

Shutter wiring diagramm



4.3. Shutter connection

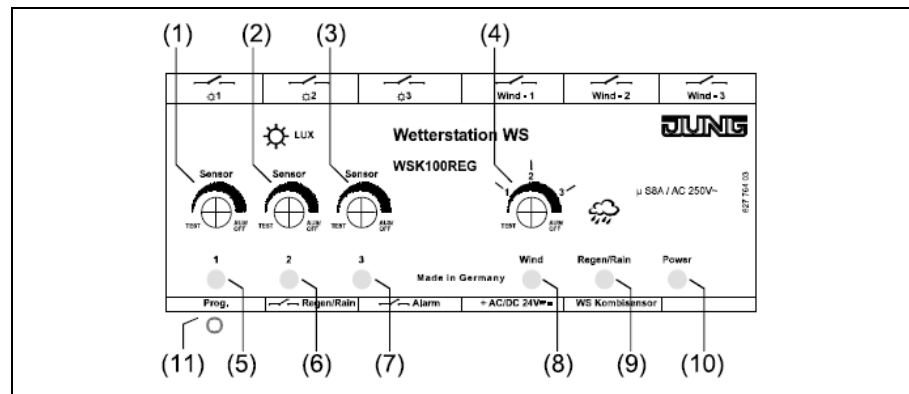
The relay contacts are connected to a mains phase conductor (L).
Shading control: To cause the connected shutter control system to move the shutters down when the sun is shining, relay outputs ☀️ 1 to ☀️ 3 are connected with the extension inputs (terminal 1 ▼) of the motor control inserts 232 ME.

Wind monitoring: To move the shutters up into the safety position in strong wind, the relay outputs Wind 1 to Wind 3 are connected to the extension inputs (terminal 2 ▲) of the motor control inserts 232 ME.

For details concerning the connection of the 232 ME, please refer to the corresponding documentation.

The outputs are firmly assigned to the cardinal points
(OST (East) = ☀ 1, SÜD (South) = ☀ 2, WEST = ☀ 3).

Indicators and controls



- (1) Potentiometer for east facade brightness threshold setting
- (2) Potentiometer for south facade brightness threshold setting
- (3) Potentiometer for west facade brightness threshold setting
- (4) Potentiometer for wind intensity limit setting
- (5) LED "1" (yellow) east facade brightness value exceeded
- (6) LED "2" (yellow) south facade brightness value exceeded
- (7) LED "3" (yellow) west facade brightness value exceeded
- (8) LED "Wind" (yellow) wind intensity exceeded
- (9) LED "Regen/Rain" (yellow) precipitation detected
- (10) LED "Power" (green) operation / fault code
- (11) Button for moving time setting (on device shoulder)

4.4. Shading function

The brightness values for the outputs 1 to 3 are cyclically scanned by the combination sensor and transmitted to the weather station. With the 3 "Sensor" potentiometers, the brightness threshold at which the shutters of the respective facade are moved to the sun protection position can be preset.

A new setting will be adopted only after 30 seconds. The LED is on, when the current brightness value transmitted by the combination sensor is above the set value.

Turning the (AUS/OFF) potentiometer fully to the right deactivates the shading function (respective relay contact open), the LED flashes briefly. Turning the potentiometer fully to the left (TEST) closes the respective relay contact; the LED flashes slowly.

If the set brightness value is exceeded for 2 minutes, the shutter moves down. The standard moving time is 2.5 minutes. If the brightness remains for 15 minutes below the set brightness value, the shutter moves up again.

The up move is controlled by the wind relay contact.

Setting individual moving times for the shading function

Attention

For this work, the cover of the distribution must be removed. In that case, the 230 V lines and terminals are no longer protected against accidental contact! Such work must therefore be carried out by qualified electricians only!

If the standard moving time of 2.5 minutes is too long, it can be shortened separately for each channel:

- Turn one or more LUX potentiometers fully to the right (AUS/OFF), the LED flashes briefly.
- Press the “Prog” button briefly. The relay is closed and the shutter moves down. The LEDs flash fast.
- When the desired position is reached, press the “Prog” button once again briefly. The relay opens and the shutter stops. The new moving time is stored in memory.

If the “Prog” button is kept pressed when the 24 V supply voltage is switched on, the standard moving times will be restored.

4.5. Wind monitoring function

The wind speed is sensed by the combination sensor and transmitted cyclically to the weather station.

The “Wind” potentiometer can be used for setting the limit value at which the shutters of all 3 facades move up into safety position. A new setting will be adopted only after 30 seconds.

The “Wind” LED is on, when the current wind speed transmitted by the combination sensor is above the set value. The wind monitoring function has the highest priority.

Any shading function in progress at this time, will therefore be overridden.

Turning the potentiometer fully to the right (AUS/OFF) deactivates the wind monitoring function and the LED flashes briefly.

When turned fully to the left (TEST), the LED flashes slowly and the relay contacts Wind-1 to Wind-3 will be closed independently of the set limit value as soon as the wind wheel of the combination sensor starts turning.

If the set limit value for the wind speed is exceeded during 5 seconds, the shutters of three facades will move up.

They remain in this position until the wind speed is for at least 15 minutes below the set value.

Thereafter, the control is again ready to accept normal move commands or to activate the shading function.

Setting aid:

“Wind” potentiometer in position 2 corresponds to a limit value of approx. 10 m/s which in turn means wind force 5.

4.6. Precipitation detect

The combination sensor senses precipitation and transmit the information to the weather station.

The relay contact "Regen/Rain" is closed and the LED "Regen/Rain" lights up.

The relay contact is opened again only after no precipitation has been detected during 15 minutes.

The precipitation detect function can be used for closing motoroperated skylights or fanlights in winter gardens in case of rain or snow.

4.7. Alarm function

The weather station WSK100 REG monitors the connection with the combination sensor. An alarm is triggered, if:

- the connection with the combination sensor is interrupted or short-circuit -> message 1
- no wind has been detected during 12 hours because the wind wheel is blocked, for instance -> message 2
- a constant wind signal is detected during 12 hours -> message 3

In case of alarm, the relay outputs "Wind-1 to Wind-3" are closed and the shutters on all 3 sides of the house move up. In addition, the relay contact "Alarm" is closed, e.g. to indicate the alarm condition by means of signal lamp.

The "Power" LED flashes signalling the respective fault message code: LED flashing once => message 1, LED flashing twice => message 2, etc.

5. Technical data

Supply

supply voltage :	AC 24 V \pm 15 % DC 24 V \pm 10 %
current consumption :	max. 300 mA
Ambient temperature :	-5 °C ... +45 °C
Storage / transport temperature :	-25 °C ... +70 °C
Humidity ambient/storage/transport :	max. 93% relative humidity, no condensation
Type of protection :	IP 20 as per DIN EN 60529

Installation width : 6 modules / 108 mm

Connections

inputs, supply :	screw terminals
single wire	0.5 mm ² bis 4mm ²
stranded wire (without ferrule)	0.34 mm ² bis 4 mm ²
stranded wire (with ferrule)	0.14 mm ² bis 2.5 mm ²
Combination sensor WS10 KS :	4-pole WAGO connecting terminal type 252-104

outputs :	:relays (n.o. contacts) : 8 x 250 V / 8 A
Precipitation	: YES/NO
Potentiometer "Sensor"	: 0 ... 76 klx
Hysteresis	: ± 5% of end-of-range value
Potentiometer "Wind"	: 1 ... 20 m/s, OFF
position 1	: approx. 5 m/s
position 2	: approx. 10 m/s
position 3	: approx. 15 m/s
Hysteresis	: ± 5% of end-of-range value

Technical specifications subject to change.

6. Guarantee

Our products are under guarantee within the scope of the statutory provisions.

Please return the unit postage paid to our central service department giving a brief description of the fault:

ALBRECHT JUNG GMBH & CO. KG

Service-Center

Kupferstr. 17-19

D-44532 Lünen

Service-Line: 0 23 55 . 80 65 51

Telefax: 0 23 55 . 80 61 89

E-Mail: mail.vki@jung.de

General equipment

Service-Line: 0 23 55 . 80 65 55

Telefax: 0 23 55 . 80 62 55

E-Mail: mail.vkm@jung.de

KNX equipment

Service-Line: 0 23 55 . 80 65 56

Telefax: 0 23 55 . 80 62 55

E-Mail: mail.vkm@jung.de



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