

# WAREMA Weather station move

## Operating and installation instructions



*Der SonnenLichtManager*

Valid from  
1 September 2023  
Keep for future use.

### General information



Fig. 1 WAREMA Weather station move

The WAREMA Weather station move collects measuring values for brightness, wind, precipitation and outside temperature. The measuring values are sent to the Omnexo Central control unit via the bus connection. It controls the connected sun shading products as a function of this weather information. The weather station is mounted outside by means of a fixing bracket or a pole.

### Intended use

The WAREMA Weather station move is an electronic device for the collection of measuring values in combination with an Omnexo central control unit. The approval of the manufacturer must be obtained for any use of the device other than its intended purpose specified in these instructions.

### Safety instructions



**WARNING**  
The electrical installation (assembly)/dismantling must be performed by a certified electrician in accordance with VDE 0100 and/or with the standards and legal requirements pertaining to the respective country. The electrician must observe the installation notes and instructions included with the electrical devices supplied.



**WARNING**  
If hazard-free operation cannot be assumed, the device must not be started or must be deactivated. This assumption is justified if:

- ▶ the housing or the connecting lines show signs of damage,
- ▶ the device is no longer working.



**WARNING**  
The sensor may only be operated with safety extra low voltage.



**WARNING**  
An automatically controlled mechanism may begin to move unexpectedly!

- Therefore, never place any objects in the area of movement of an automatically controlled mechanism.
- Disconnect the power supply of the controlled sun shading products before maintaining or cleaning the products.

### Function

The weather station records precipitation events such as rain or snow, wind speed, ambient brightness, dawn/dusk and outside temperature. The weather station only has to be connected as a network device; the 24 V DC power supply is provided via the four-wire bus line.

Four photo sensors arranged at right angles record the ambient brightness; sensor 1 also records dawn/dusk values in a second measuring area.

#### Sensor surface to detect precipitation

In case of precipitation in the form of fine drizzle, rain or snow the sensor triggers a switching signal. When the outside temperature is below 15 °C or there is precipitation, the sensor surface is automatically heated. This prevents ice formation or a false alarm due to high humidity. After the sensor surface has detected precipitation, it quickly dries again because of the heating. The inclination of the sensor surface creates the required angle to allow the water to drain off the sensor surface.

### Installation

Install the weather station using the mounting bracket provided.

- The weather station must be mounted in an upright position with a maximum inclination of  $\pm 2^\circ$ . The photodiodes must be at right angles to the building facades being shaded.

- Install the weather station in an easily accessible location at the highest point of the roof structure or the facade side to be monitored. To avoid hindering accurate wind evaluation, do not mount the device away from the wind.
- For the system to function properly, precipitation must be able to hit the sensor surface without interference.
- The supply line must be routed so that water cannot enter into the device or into the building. Use weather-proof (suitable for outdoor installation) cables such as 4 x AWG 26 C UL black.
- The total line length from the weather station must not exceed 200 m if a twisted paired line is used and routed in an interference-proof manner.

**i** Depending on the installation situation, you can also directly route the line of type JY(St)Y to the WAREMA Weather station move. It must be ensured that the line is protected against UV radiation (e.g. in a conduit, tube) along its entire length.

- The photodiode 1 is used for the dawn/dusk control. The weather station should therefore be positioned so that the photodiode cannot be influenced at night by street or garden lighting or other external light sources (e.g. flashlights).
- Trees, bushes or parts of the building can shade the sensor during the course of the day. In this case, the sensor cannot deliver exact measuring values and the results will be incorrect. Therefore, select the installation location carefully.

**i** The weather station can also be mounted on an optionally available pole. This requires an additional fixing adapter (special accessory).

## Electrical connection

An on-site overload current protection device (fuse) and a disconnecting and isolating switch to switch off the entire unit must be provided.

- Use a line that is approved for the operating voltage and is resistant to weather and UV rays (suitable for outdoor use), e.g. 4 x AWG 26 UL black.
- The supply line must be routed so that water cannot enter into the device or into the building.
- The total line length must not exceed 1,200 m if a twisted pair line is used and routed in an interference-proof manner.
- Pay attention to the minimum voltage at the weather station (voltage drop) and use a separate power supply unit for the power supply if necessary.
- Connect the weather station to the Omnexo Central control unit as per wiring diagram Fig. 4 on page 4.
- The bus lines must be provided with terminating resistors at the beginning and end of the line.
- HUBs are needed for longer line lengths.
- If you are using the optional WAREMA Weather station pro power supply unit 24 V DC/1.3 A AP (article number 2057430), a branch line of max. 10 m to the WAREMA Weather station move is permissible.

- Please take out the WAREMA ID labels from the devices and give them to your system integrator (see also page 4). A clear allocation of the devices and ID labels must be ensured.

This device meets the requirements on electromagnetic immunity and electromagnetic interference for use in residential and commercial environments.

**i** If the WAREMA Weather station move is the last bus device in the bus line, the terminating resistor needs to be manually set (see Fig. 4 on page 4).

**i** Depending on the installation situation, you can also directly route the line of type JY(St)Y to the WAREMA Weather station move. It must be ensured that the line is protected against UV radiation (e.g. in a conduit, tube) along its entire length.

## Commissioning

To be able to commission the weather station, it must be set up in the Omnexo software. To determine the serial number, place the magnet (in central control unit scope of delivery) on the right side of the housing (photo 2) until the status LED lights up for confirmation. (see Fig. 3 on page 4).

Alternatively, you can manually enter the serial number manually (see label on device).

**i** When commissioning, note that the weather station has an internal temperature correction feature that improves measurement accuracy. A change in temperature is displayed with a delay of 10 minutes per °C.

When the operating voltage is first switched on, a temperature measurement is taken at the weather station. If the weather station was previously stored at a considerably lower or higher temperature, it may take several hours before the correct temperature is displayed.

If the weather station is already at the temperature of its environment when it is first switched on, the actual temperature measurement value will be displayed from the start.

## Allocation of the photodiodes

The numbers 1 to 4 have been factory-assigned to the four photodiodes (see Fig. 2). Therefore, position the photodiodes according to the building facades being shaded. Align photodiode 1 to the northernmost facade. For installation directly on the facade, align photodiode 1 to the facade.

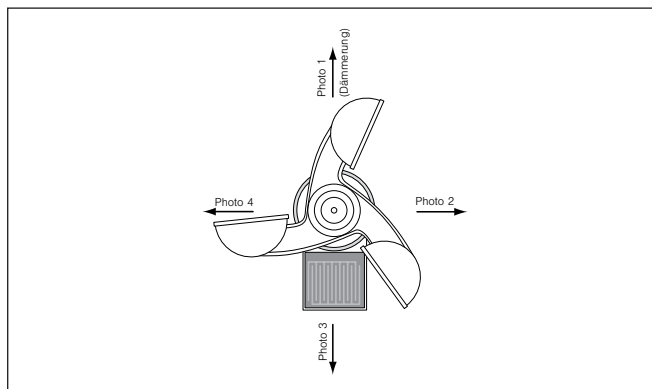


Fig. 2 Position of the photodiodes on the device

## Maintenance

There are no parts within the device that require maintenance.

## Cleaning

The weather station should occasionally be checked for dirt (e.g. bird droppings) and cleaned carefully. Clean the housing with a soft, damp cloth. Do not use detergents, cleaning agents, solvents, abrasive substances or steam cleaners!

## Liability

Failure to comply with the product information in these instructions and any use of the device other than its intended use may result in the manufacturer refusing to honour warranty claims for product damage. In this case, liability for secondary harm to persons or damage to property will also be excluded. Observe the information in the operating instructions for your sun shading system. The automatic or manual operation of the sun shading system while iced over and the use of the sun shading system during severe weather may cause damage and must be prevented by the operator through suitable precautions.

## Obligations for the disposal of electrical devices




A marking with this symbol indicates the following obligations under the scope of legal regulations:

- The owner of this electrical device must dispose of it separately from unsorted municipal waste for further recycling.
- Used batteries and accumulators that are not enclosed in the old device, as well as lamps/bulbs that can be removed from the old device without breaking, must be disposed of separately.
- Distributors of electrical devices and disposal companies are obliged to take back the equipment free of charge.
- The owner must take it upon themselves to delete any personal data contained in the electrical device prior to disposal.

## Technical data

WAREMA Weather station move	min.	type	max.	Unit
<b>Supply</b>				
Operating voltage (SELV)	21.6	24	26.4	V DC
Current consumption	30		100	mA
<b>Temperature sensor*</b>				
Measuring range	-20		60	°C
Resolution		0.5		°C
Accuracy		±2		°C
<b>4 direction-dependent photo sensors</b>				
Measuring range	0		100	klx
Resolution		1		klx
Accuracy		±10		%
Dawn/dusk measuring range	0		500	lx
Resolution at dawn/dusk		1		lx
Accuracy at dawn/dusk		±10		%
<b>Wind speed</b>				
Measuring range	0		25	m/s
Resolution		1		m/s
Accuracy		±1		m/s

WAREMA Weather station move	min.	type	max.	Unit
<b>Precipitation sensor</b>				
Measuring range				Precipitation yes/no
<b>Omnexo interface</b>				
Bus interface				RS485 (two-wire bus)
<b>Housing</b>				
Dimensions				130 × 175 × 130 mm (WxHxD)
Degree of protection				IP 43
Safety class				III
Installation				Wall/pole
<b>Miscellaneous</b>				
Conformity				 Can be viewed at <a href="http://www.warema.de/ce">www.warema.de/ce</a>
This device complies with the EMC directives for use in residential and commercial areas.				
Software class				A
<b>Ambient conditions</b>				
Operating temperature	-30		60	°C
Storage temperature	0		70	°C
Humidity (not condensing)	10		100	%RH
Degree of soiling				2
<b>Connection</b>				
Interface				Screw terminal
Permissible line cross-section single-wire/fine-wire without ferrule				0.14 - 1.5 mm <sup>2</sup>
Permissible line cross-section fine-wire with ferrule				0.14 - 0.75 mm <sup>2</sup>
Stripping length				7 mm
Maximum line length				10 m
Recommended line type for outdoors				4 x AWG 26 C UL (resistant to UV rays)
<b>Article numbers</b>				
WAREMA Weather station move				2047094
<b>Optional accessories</b>				
WAREMA Weather station pro power supply unit 24 V DC/1.3 A AP				2057430
Connecting line 4 x AWG 26 C UL (resistant to UV rays) 3 m				634277
Connecting line 4 x AWG 26 C UL (resistant to UV rays) 10 m				634288
Pole L = 35 cm; Dia. 20 mm, wall mounting, wall distance 150 mm				632075
Pole L = 100 cm; Dia. 20 mm, wall mounting, wall distance 150 mm				632085
Adapter for pole Dia. 50 mm				632095
WAREMA Renkhoff SE Hans-Wilhelm-Renkhoff-Strasse 2 D-97828 Marktheidenfeld, Germany Germany				

### \* Temperature measuring value:

To obtain correct and highly accurate measuring values, the weather station must be installed in direct sunlight. Therefore, when the sun is shining brightly, the temperature values measured with other thermometers in the shade may differ from the values measured here. This deviation has no effect when you use the ice monitoring function in a network user.

# KEEP IN A SAFE PLACE FOR COMMISSIONING!

Affix the ID label for the WAREMA Weather station move here



Note down installation location here

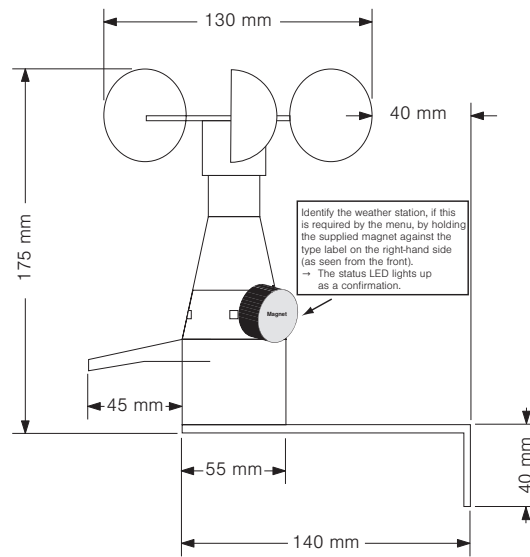


Fig. 3 WAREMA Weather station move and magnet dimensions for commissioning

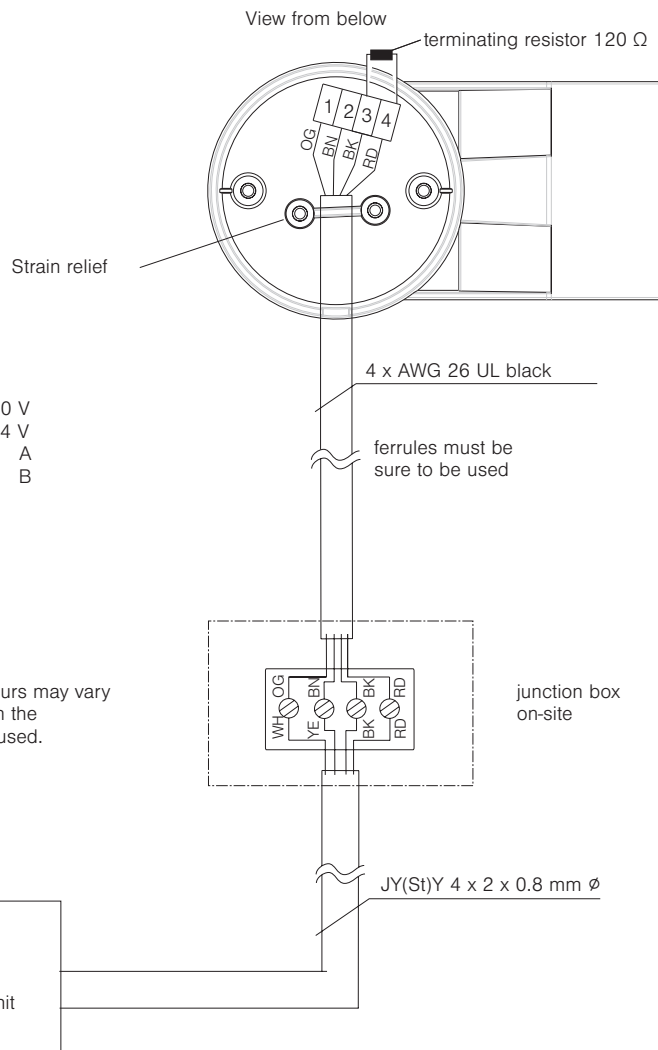


Fig. 4 WAREMA Weather station move wiring diagram