

Weather station "home"  
Art. No. : 2224 WH

## Operating instructions

### 1 Safety instructions

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

Failure to observe the instructions may cause damage to the device and result in fire and other hazards.

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

### 2 Device components

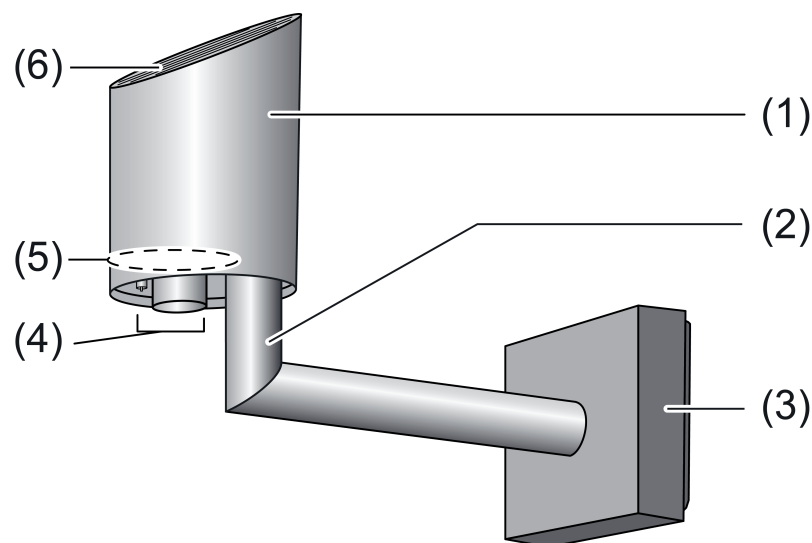


Figure 1: View

- (1) Sensor head
- (2) Angular arm
- (3) Terminal box
- (4) Temperature and wind sensors
- (5) Light and twilight sensors
- (6) Rain sensor

### 3 Function

#### System information

This device is a product of the KNX system and complies with the KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding.

The function of this device depends upon the software. Detailed information on loadable software and attainable functionality as well as the software itself can be obtained from the manufacturer's product database. Planning, installation and commissioning of the device are carried out with the aid of KNX-certified software. The latest versions of product database and the technical descriptions are available on our website.

#### Intended use

- Measurement and evaluation of the weather data: Wind speed, Precipitation, Twilight, Temperature and brightness
- Vertical installation on the outside of buildings, preferable in the roof and facade area

### Product characteristics

- Integrated KNX bus coupling unit
  - Measurement data acquisition and limit value monitoring
  - Integrated heating
- i** The measured values apply to the mounting location. Variations to other weather services – e.g. through local turbulence or areas with build-ups of air – are possible.

## 4 Information for electrically skilled persons

### 4.1 Fitting and electrical connection



#### **DANGER!**

**Electrical shock on contact with live parts in the installation environment.  
Electrical shocks can be fatal.**

**Before working on the device, disconnect the power supply and cover up live parts in the working environment.**

#### Selecting the installation location

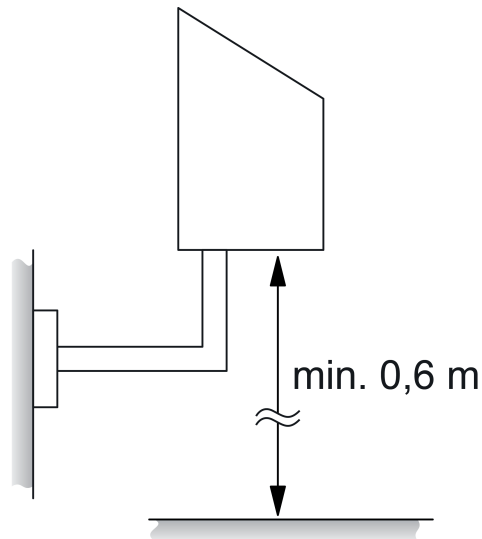


Figure 2: Minimum distance to surfaces

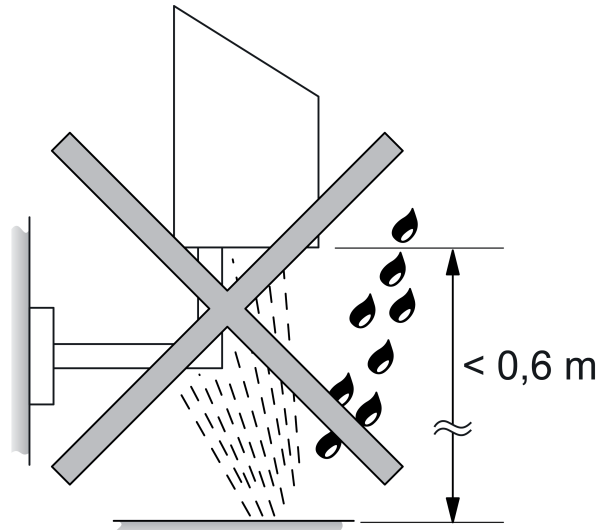


Figure 3: Avoid spray water

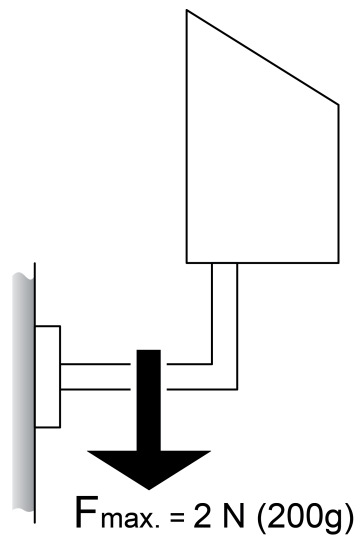


Figure 4: Maximum load on the angular arm

Select a mounting selection in which the weather station is not influenced by local obstacles or shading, such as surrounding trees, chimneys, awnings, etc. The sensor must be able to detect wind, rain and ambient brightness without impedance.

Do not mount it below or next to building sections, from which water can drip onto the device.

Select the mounting location so that the weather station will be accessible for maintenance purposes.

In the case of flat roofs, locate the weather station as close to the centre of the roof as possible.

Minimum distance to surfaces below the weather station: 0.6 m (figure 2). Otherwise, the sensors on the underside may get damaged by penetrating spray water (figure 3).

Direct sunlight, chimneys or other waste gas or ventilation systems affect the temperature measurement.

Do not operate in the vicinity of radio transmitter systems. Doing so will compromise function.

Installation on tubular mast with separate mast fastening (see accessories).

## Mounting and connecting the device

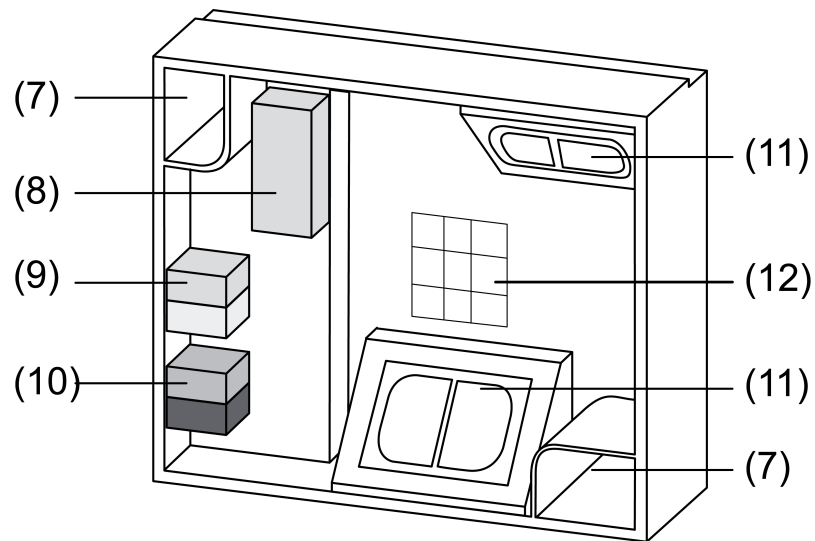


Figure 5: Terminal box opened

- Open terminal box.
- Route the cables for the power supply and bus connection through one of the two cable entries (11) and into the terminal box (3).
- Fasten lower part of terminal box e.g. to a building wall, tubular mast.
- Connect supply voltage to connecting terminal (9).
- Connect KNX bus line to connecting terminal (10).
- Connect connecting plug of the sensor head (1) to sensor terminal (8) in terminal box (3).
- ⓘ The angular arm (2) may break when the terminal box is closed. The angular arm must not be used as a lever (figure 4).
- Set device on lower part of terminal box from above and snap in at bottom.

## Aligning the device

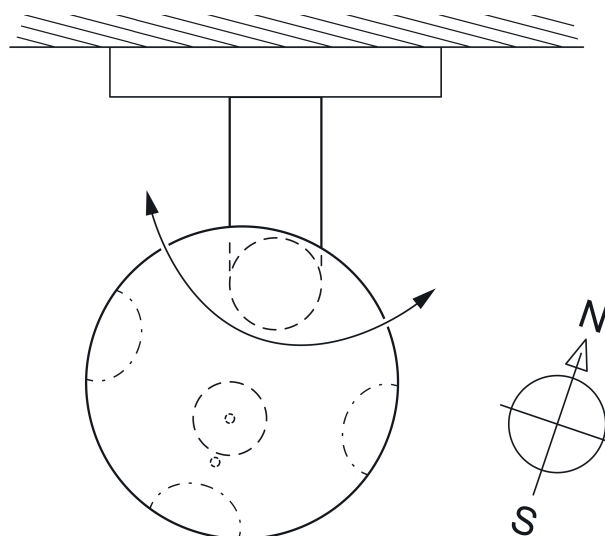


Figure 6: Orienting the weather station

- Align the sensor head in the appropriate direction or - depending on the detailed on-site circumstances - according to the alignment of the facade (figure 6).

### Dismantling the device

- Insert screwdriver into the notch on the underside of the terminal box and carefully lift the device upwards.
- Remove sensor connector from sensor terminal (8).

## 4.2 Commissioning

### Commissioning the device

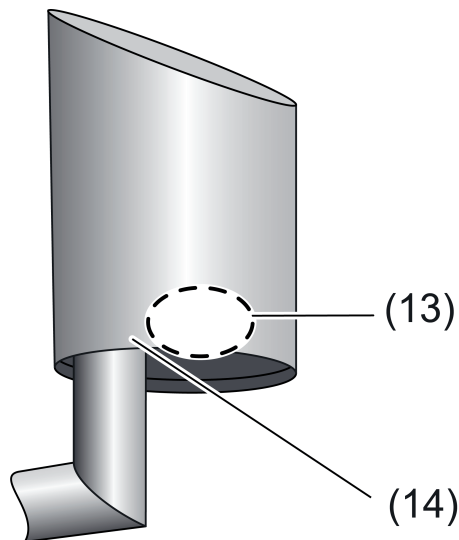


Figure 7: Position of the programming LED and reed contact

- Switch on the bus voltage.
- Switch on supply voltage.
- Hold the supplied programming magnet by the integrated reed contact (13).  
The programming LED (14) shows the programming state red.
- Assign physical addresses and load application software into the device.
- Note physical address on adhesive labels in terminal box (12) and in cover of the terminal box (figure 5).  
The device is ready for operation.

## 5 Appendix

### 5.1 Technical data

KNX medium	TP1
Commissioning mode	S-mode
Rated voltage KNX	DC 21 ... 32 V SELV
Power consumption KNX	typical 450 mW
Connection mode KNX	Connection terminal
External supply	
Rated voltage	24 V AC/DC SELV
Power consumption	typical 7.5 W
Connection of power supply	Connection terminal
Ambient conditions	
Ambient temperature	-20 ... +55 °C (free of ice and dirt)
Storage/transport temperature	-40 ... +70 °C
Housing	
Degree of protection	IP 44 (in position for use)
Protection class	III

Dimensions W × H × D	approx. 88 × 170 × 204 mm (with assembly arm)
Weight	approx. 240 g
Temperature sensor	
Measuring range for temperature	-20 ... +55 °C
Accuracy	± 1 C (for wind speeds > 0.5 m/s)
Wind sensor	
Measuring range for wind	0 ... 40 m/s
Accuracy	2 m/s
Precipitation sensor	
Measuring range for precipitation	Yes/No (binary)
Sensitivity to precipitation	Fine drizzle
Brightness sensors	
Compass directions	east, south, west
Spectral range	700 ... 1050 nm
Measuring range for brightness	1 ... 110 klx
Accuracy	10 % (fm. ET)
Twilight sensor	
Direction	south
Spectral range	700 ... 1050 nm
Measuring range for twilight	0 ... 674 lx
Accuracy	10 % (fm. ET)

## 5.2 Accessories

Power supply AC 24 V ~	Art. No. WSSV10
Connection set for edge mounting	Art. No. MW 270 ..
Connection set for pole mounting	Art. No. MM 100

## 5.3 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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