

P04i-GPS Weather Station

Technical specifications and installation instructions

Item number 30136



The **P04i-GPS weather station** for WS1/1000 Color/Style and WS1000 Connect measures temperature, wind speed and brightness. It recognises precipitation and receives the GPS signal for time and location (international time signal and position).

The weather station is suitable as accessory for KNX WS1000 Color/Style and as spare part for WS1 Color/Style and WS1000 Color/Style which were produced from July 2016 on. For older models of the controls please ask Elsner Elektronik for the suitable weather station model.

1. Installing the weather station

1.1. Installation location

Select an installation position on the building where the sensors can measure wind, rain and sunshine without hindrance. No structural elements should be mounted above the weather station from which water could continue to drop on the precipitation sensor even after it has stopped raining or snowing. The weather station should not be shaded by structures or, for example, trees.

At least 60 cm of clearance must be left around the device. This facilitates correct wind speed measurement without eddies. At the same time, this prevents spray (raindrops hitting the device) or snow (snow penetration) from impairing the measurement. The wind sensor must not come into contact with water. This also prevents birds from biting it.

The installation position should prevent rain and wind sensors from being touched by people.

Please ensure that the extended awning does not cast shade on the device, and does not protect the device against wind.

Temperature measurements can also be distorted by external influences such as warming or cooling of the building structure on which the sensor is mounted (sunlight, heating or cold water pipes).

Magnetic fields, transmitters and interference fields from electrical consumers (e.g. fluorescent lamps, neon signs, switch mode power supplies etc.) can block or interfere with the reception of the GPS signal.

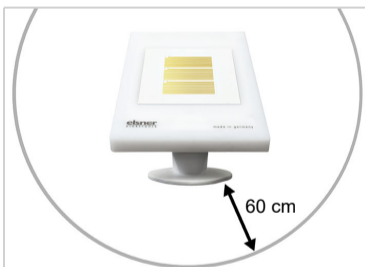


Fig. 1
There must be at least 60 cm clearance to other elements (structures, construction parts, etc.) below, to the sides and in front of the weather station.

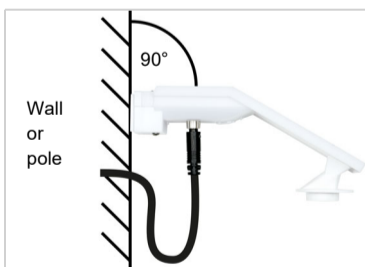


Fig. 2
The device must be attached to a vertical wall (or a pole).

Place the supply line in a loop before leading it into the wall or junction box. This will allow rain to drip off and not drain into the wall or box.



Fig. 3
The device must be mounted in the cross direction, i.e. in horizontal (transverse) direction.

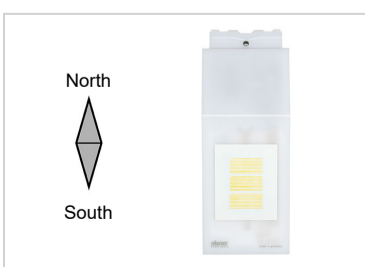


Fig. 4
For installation in the northern hemisphere, the device must be aligned to face south.

For installation in the southern hemisphere, the device must be aligned to face north.

1.2. Sensor position

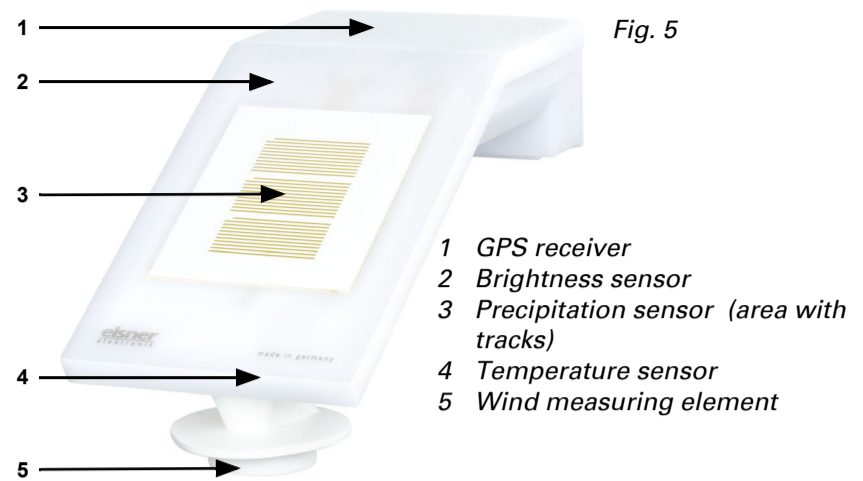


Fig. 5



ATTENTION!

Sensitive wind sensor.

- Remove the protective transport sticker after installation.
- Do not touch the sensor on the wind measuring element (on bottom, recessed).

1.3. Measurement direction of the brightness sensor

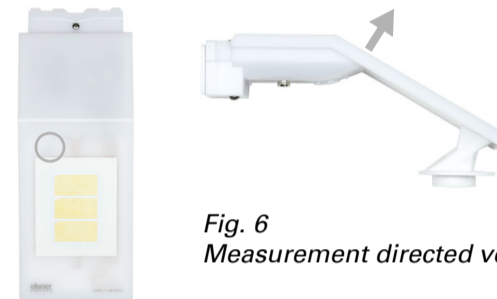


Fig. 6

Measurement directed vertically to the device surface

1.4. Attach mount

First, assemble the mount for wall/pole mounting. Release the screw joint of the mount with a cross-headed screwdriver.

Wall installation

Hole spacing 30 mm

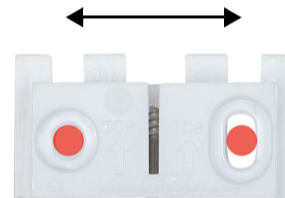


Fig. 7 Front view

Use two screws to attach the mount to the wall. Use the fastening material (dowels, screws) that is suitable for the base.

Make sure that the arrows are pointing upward.

Pole installation

The device is installed on the pole with the enclosed clamp.

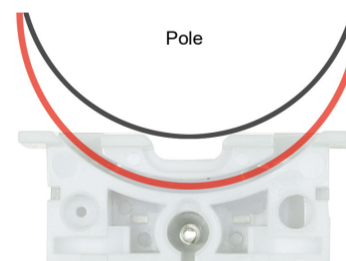


Fig. 8 Bottom view

Insert the clamp in the mount through the recess. Tighten the clamp on the pole.

Make sure that the arrows are pointing upward.

1.5. Attaching and connecting the device



Fig. 9

1. Slide the device onto the mounting from above.
2. Tighten the screw of the mount to secure the device.
3. Screw the M8 connectors of the connection cable onto the connection socket on the bottom side of the device.

Connect the loose end of the connection cable to the control. Use the connection sockets and clips included for this purpose.

Use the **red and black wires** for +24 V DC and GND (polarity independent). Yellow and white are not assigned.

The feed to the weather station must be a maximum of 100 m long. The connection is made with off-the-shelf UV-resistant telephone cable (A-2Y(L)2Y 2x2x0.6 or A-2Y(L)2Y 2x2x0.8).

2. Notes on mounting and commissioning

Remove all existing protection labels after installation.

The correct wind value may only be supplied about 30 seconds after the supply voltage has been connected.

3. Maintenance of the weather station



WARNING!

Risk of injury caused by components moved automatically!

The automatic control can start system components and place people in danger (e.g. moving windows/awnings if a rain/wind alarm has been triggered while cleaning).

- Always isolate the device from the mains for servicing and cleaning.

The device must regularly be checked for dirt twice a year and cleaned if necessary. In case of severe dirt, the sensor may not work properly anymore.



ATTENTION

The device can be damaged if water penetrates the housing.

- Do not clean with high pressure cleaners or steam jets.

4. Technical specifications P04i-GPS

Housing	Plastic
Colour	White / Translucent
Assembly	Surface mount
Protection category	IP 44
Dimensions	approx. 62 × 71 × 152 (W × H × D, mm)
Weight	weather station with mount approx. 90 g. total weight including accessories approx. 280 g
Ambient temperature	Operation -30...+50°C, Storage -30...+70°C
Voltage	24 V DC
Power	max. 105 mA
Temperature sensor:	
Measurement range	-30°C ... +50°C
Resolution	0.1°C
Accuracy	±0.5°C at -30°C ... +25°C ±1.5°C at -30°C ... +45°C
Wind sensor:	
Measurement range	0 m/s ... 35 m/s
Resolution	0.1 m/s
Accuracy	±15% of the measurement value when incoming flow is 45°...315° (Frontal incoming flow corresponds to 180°)
Brightness sensor	
Measurement range	0 lux ... 99 000 lux
Resolution	1 lux up to 300 lux 2 lux up to 1000 lux 25 lux up to 99 000 lux
Accuracy	±15% of the measurement value at 30 lux ... 30 000 lux

The product is compliant with the provisions of the EU guidelines.

Supplied accessories:

- Connection cable approx. 10 m, with plug and connecting terminals
- Surface-mounted junction box (IP 55, not weatherproof)
- Worm-thread clamp Ø 40-60 mm
- 4x50 mm stainless steel roundhead screws and 6x30 mm dowels for wall mounting. Use fixing materials that are suitable for the base!