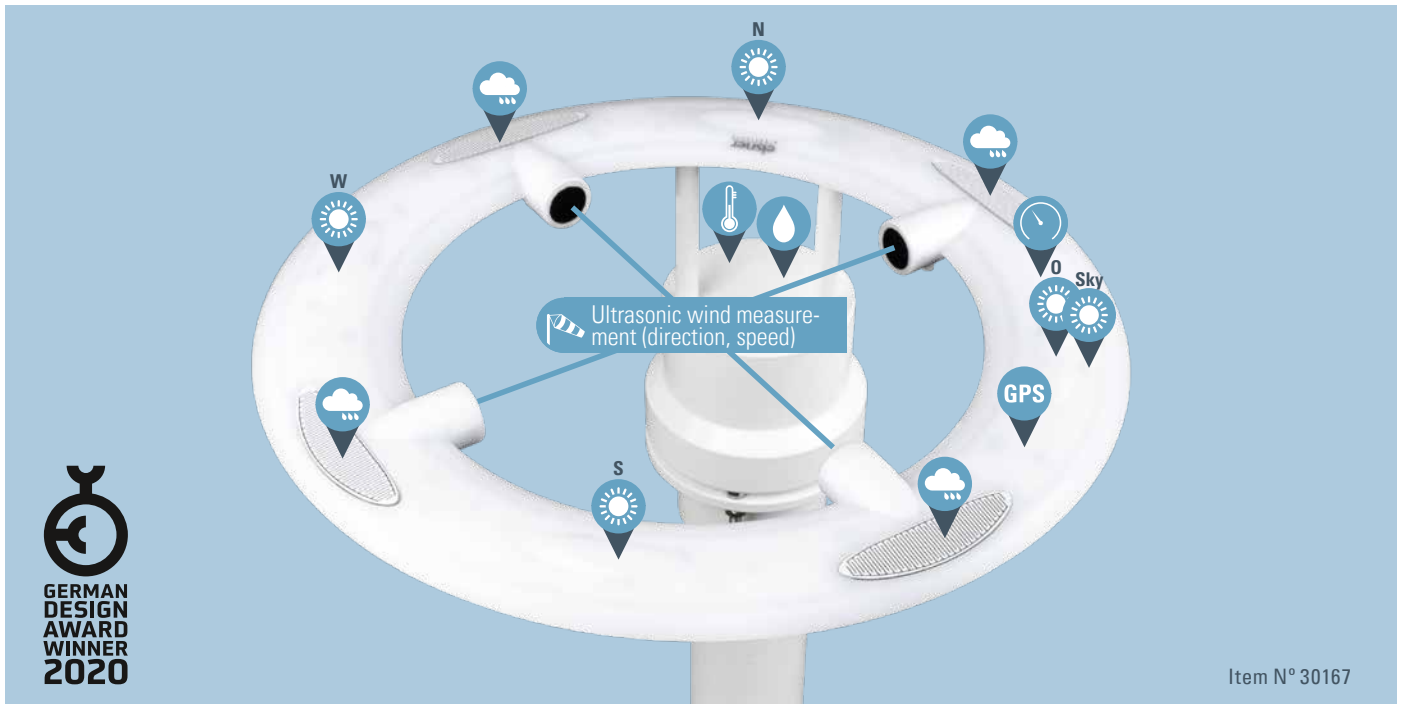


# Suntracer RS485 pro

## WEATHER STATION

The weather station with RS485 communication interface reliably and professionally captures weather data for smart buildings.



### RECORDING WEATHER DATA with Suntracer RS485 pro

- **Brightness measurement** (current light intensity) with 5 separate sensors, output of the current highest value (one maximum value). Separate night message
- **GPS receiver** with output of current time, date and day of the week, of location coordinates including height above sea level and of calculated sun position (azimuth and elevation)
- **Wind measurement** by ultrasound. Output of speed and direction (0°-360°). Free of wear

- **Precipitation detection** with widely spaced, heated sensor surfaces. No false alarm in case of fog or dew. Fast drying after the end of the precipitation
- **Temperature measurement** and calculation of the perceived temperature taking into account wind force and humidity
- **Air humidity measurement** (relative, absolute). Dew point calculation
- **Air pressure measurement**

### WIND MEASUREMENT WITH ULTRASOUND Measurement methods and advantages

The shape of the Suntracer RS485 pro ensures a turbulence-free air flow. The wind measurement is carried out on two horizontal sections offset by 90°. On each section, two signals are sent in the opposite direction shortly after each other. The speed and direction of flow are determined from the differences in the running time of the two axes.

An advantage of the process is the short reaction time, even with gusts and peak values. Changes of direction or strength are directly visible in the change of the measured value on the data bus. In this way can blinds, awning cloth and other wind-sensitive components be moved quickly into a safe position.

If the wind direction is known in the building control system, the façades exposed to the wind can be specifically protected and costly wind damage avoided. The automatic shading and ventilation continues on the sides of the building facing away from the wind. Similar to the sun protection control, a compass direction profile is designed for the wind alarm and individual façade sections are controlled in a targeted manner. The often conflicting goals of protecting building elements and technology, offering the user comfort and opportunities for co-determination and optimising the building's energy efficiency are thus reconciled in the best possible way.

### MOUNTING

The filigree, ring-shaped structure of Suntracer RS485 pro is very resistant, as it is reinforced on the inside by stainless steel elements.

In order to capture the weather unadulterated, Suntracer RS485 pro is mounted on a mast on the roof of the building. The supplied mast extension ensures a distance between sensors and surrounding components. It can be clamped to a vertical mast or a horizontal pipe or screwed to a beam.

For correct measurement results the ring must be aligned horizontally. A small spirit level, which is included with the instrument, helps here.

