

WS600 UMB compact weather station

Air Temperature, Rel. Humidity, Air Pressure, Precipitation Type and Intensity, Wind Speed and Direction

A WS family member of professional, intelligent sensors with digital interface for environmental's applications:

Integrated construction with ventilated radiation shield for measuring:

- Air Temperature
- Relative Humidity
- Air Pressure
- Precipitation Type and Intensity
- Accumulated Precipitation
- Wind Direction
- Wind Speed

The relative humidity is measured by a capacitive sensor element, the air temperature by precise NTC element.

Precipitation detection is based on 24 GHz doppler-radar. The drop speed of each individual drop (rain/snow) is measured.

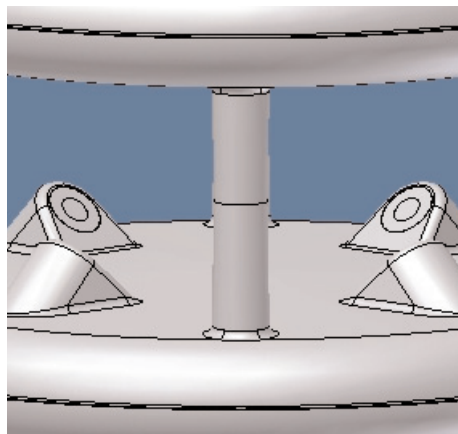
Based on the correlation between drop size and speed, the amount of precipitation and/or precipitation intensity is determined.

The type of precipitation (rain/snow) is determined by different drop speed.

A substantial advantage against "tipping buckets" is the maintenance-free operation.

Wind detection is based on ultrasonic sensors.

The open Lufft protocol (UMB) allows easy integration into 3rd parties applications.



Compact Design
UMB interface
maintenance-free
operation

Technical Data	Ref.No.
WS600 UMB	
precipitation intensity and type	
Resolution	0,01mm
Measuring range drop size	0,3...5mm
Reproductibility	typ.>90%
type of precipitation	rain/snow
Temperature	
Principle	NTC
Measuring range	-30 °C ... 70 °C
Accuracy	±0,2°C
Relative humidity	
Principle	capacitive
Measuring range	0 ... 100 % RH
Accuracy	±2% r.h.
Air pressure	
Principle	MEMS capacitive
Measuring range	300 .. 1200 hPa
Accuracy	±1,5hPa
Wind direction	
Principle	Ultrasonic
Measuring range	0...60m/s
Accuracy	± 0,3m/s or 3% of measured value
Wind speed	
Principle	Ultrasonic
Measuring range	0...360°
Accuracy	± 3°
General information	
Interface	RS485, 2-wires, half duplex
voltage supply	12...24VDC +/- 10% < 3VA
Permissible rel. humidity	0...100% r.h.
Permissible temperature	-30...70°C
Heating	50VA at 24VDC
Accessoires	
cable and mast fixing device included	

