

WS600-UMB - TEMPERATURE, RELATIVE HUMIDITY, PRECIPITATION, AIR PRESSURE, WIND

From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications.

Integrated design with ventilated radiation protection for measuring:

- Air temperature
- Relative humidity
- Precipitation intensity
- Precipitation type
- Precipitation quantity
- Air pressure
- Wind direction
- Wind speed

Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature.

Precipitation is measured by way of a 24 GHz Doppler radar, which measures the drop speed of an individual drop of rain/snow.

Precipitation quantity and intensity are calculated from the correlation between drop size and speed.

The difference in drop speed determines the type of precipitation (rain/snow).

Maintenance-free measurement offers a major advantage over the common tipping spoon and tipping bucket processes.

Ultrasonic sensor technology is used to take wind measurements (WS600 only).

Measurement data are available for further processing in the form of a standard protocol (Lufft-UMB protocol).

Technical Data	Order No.
WS600-UMB Compact weather station	8370.U01 EU, USA, Canada / 8370.U02 UK
Dimensions	Ø ca. 150mm, Height ca. 345mm, Weight approx. 1,5kg
Temperature	
Principle	NTC
Measuring range	-30...70°C
Accuracy	±0,2°C (-20°C...+50°C), otherwise ± 0,5°C
Relative humidity	
Principle	capacitive
Measuring range	0...100 % RH
Accuracy	±2% RH
Precipitation intensity	
Resolution	0,01mm
Measuring range drop size	0,3...5mm
Reproducibility	typ. >90%
Precipitation type	Rain/snow
Air Pressure	
Principle	MEMS capacitive
Measuring range	300...1200 hPa
Accuracy	±1,5hPa
Wind direction	
Principle	Ultrasonic
Measuring range	0...359,9°
Accuracy	± 3°
Wind speed	
Principle	Ultrasonic
Measuring range	0...60m/s
Accuracy	± 0,3m/s or ±3% (0...35m/s)
Heating	30VA at 24VDC
General information	
Interface	RS485, 2-wire, half-duplex
Operating power consumption	24VDC +/- 10% <4VA (without heating)
Operating humidity range	0...100%
Operating temperature range	-30...70°C
Accessories	Order No.
Surge protection	8379.USP
Power supply 24V/4A	8366.USV1
UMB interface converter ISOCON	8160.UISO



All in One
 aspirated temperature/
 humidity measurement
 maintenance-free operation
 open communication protocol

WS500-UMB - TEMPERATURE, RELATIVE HUMIDITY, AIR PRESSURE, WIND

From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications.

Integrated design with ventilated radiation protection for measuring:

- Air temperature
- Relative humidity
- Air pressure
- Wind direction
- Wind speed

Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature.

Maintenance-free measurement offers a major advantage over the common tipping spoon and tipping bucket processes.

Measurement data are available for further processing in the form of a standard protocol (Lufft-UMB protocol).

Technical Data	Order No.
WS500-UMB Compact weather station	8373.U01
Dimensions	Ø ca. 150mm, Height ca. 290mm, Weight approx. 1,3kg
Temperature	
Principle	NTC
Measuring range	-30...70°C
Accuracy	±0,2°C (-20°C...+50°C), otherwise ± 0,5°C
Relative humidity	
Principle	capacitive
Measuring range	0...100 % RH
Accuracy	±2% RH
Air Pressure	
Principle	MEMS capacitive
Measuring range	300...1200 hPa
Accuracy	±1,5hPa
Wind direction	
Principle	Ultrasonic
Measuring range	0...359,9°
Accuracy	± 3°
Wind speed	
Principle	Ultrasonic
Measuring range	0...60m/s
Accuracy	± 0,3m/s or ±3% (0...35m/s)
Heating	10VA at 24VDC
General information	
Interface	RS485, 2-wire, half-duplex
Operating power consumption	24VDC +/- 10% <4VA (without heating)
Operating humidity range	0...100%
Operating temperature range	-30...70°C
Accessories	Order No.
Surge protection	8379.USP
Power supply 24V/4A	8366.USV1
UMB interface converter ISOCON	8160.UISO



Ultrasonic wind sensor
 maintenance-free operation
 open communication protocol

