

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



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